

FIG. 1

EXAMPLE 1 (PARALLEL DIRECTION)

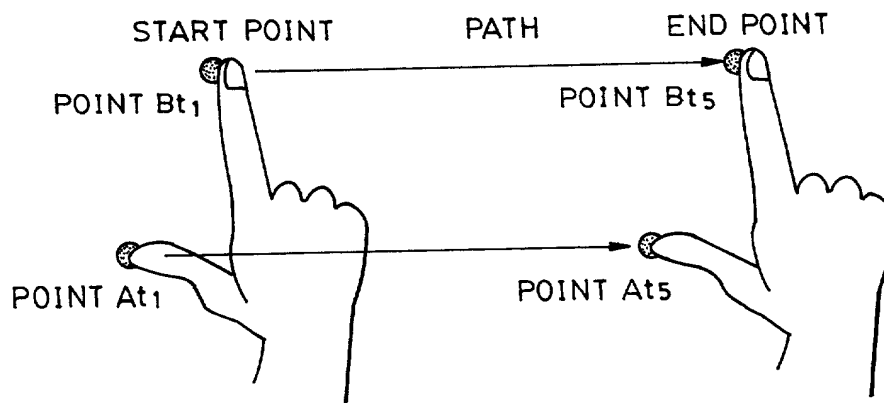


FIG. 2A

EXAMPLE 2 (INWARD DIRECTION)

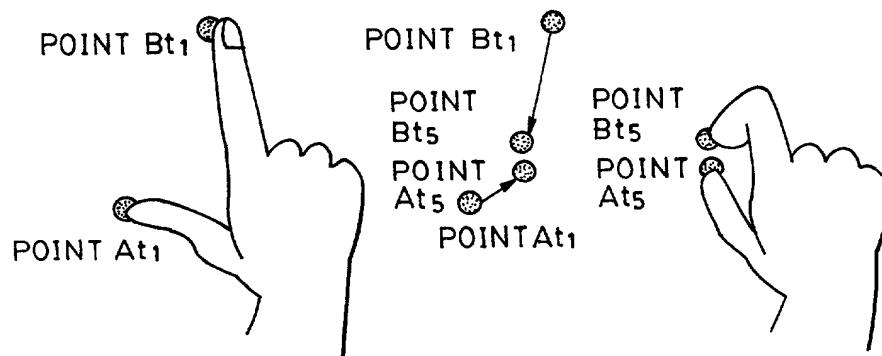


FIG. 2B

EXAMPLE 3 (OUTWARD DIRECTION)

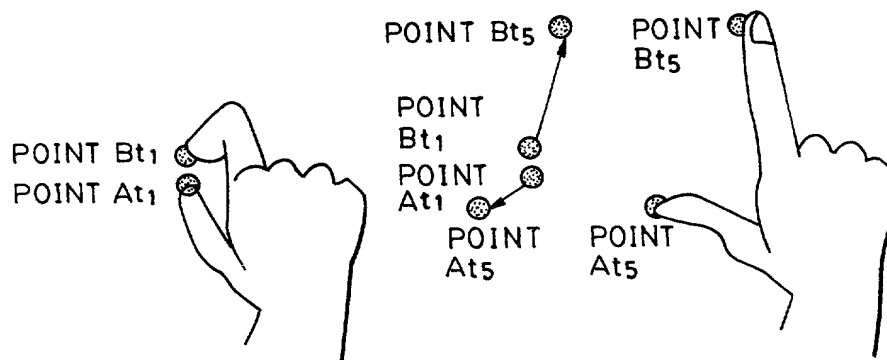


FIG. 2C

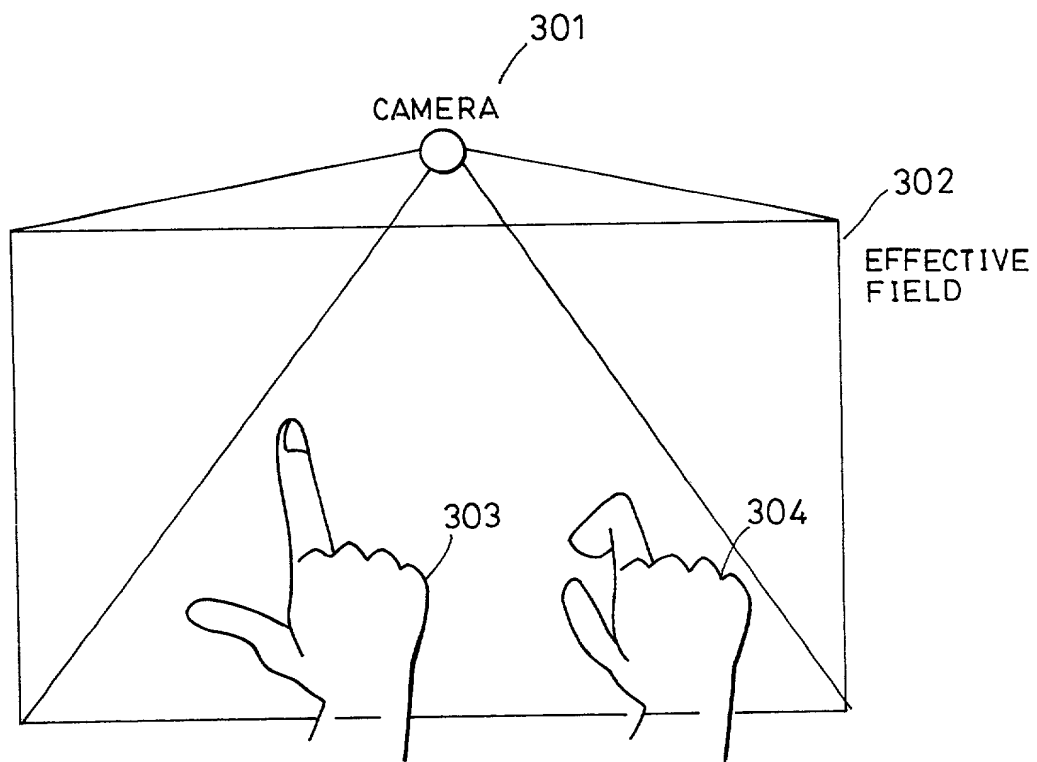


FIG. 3

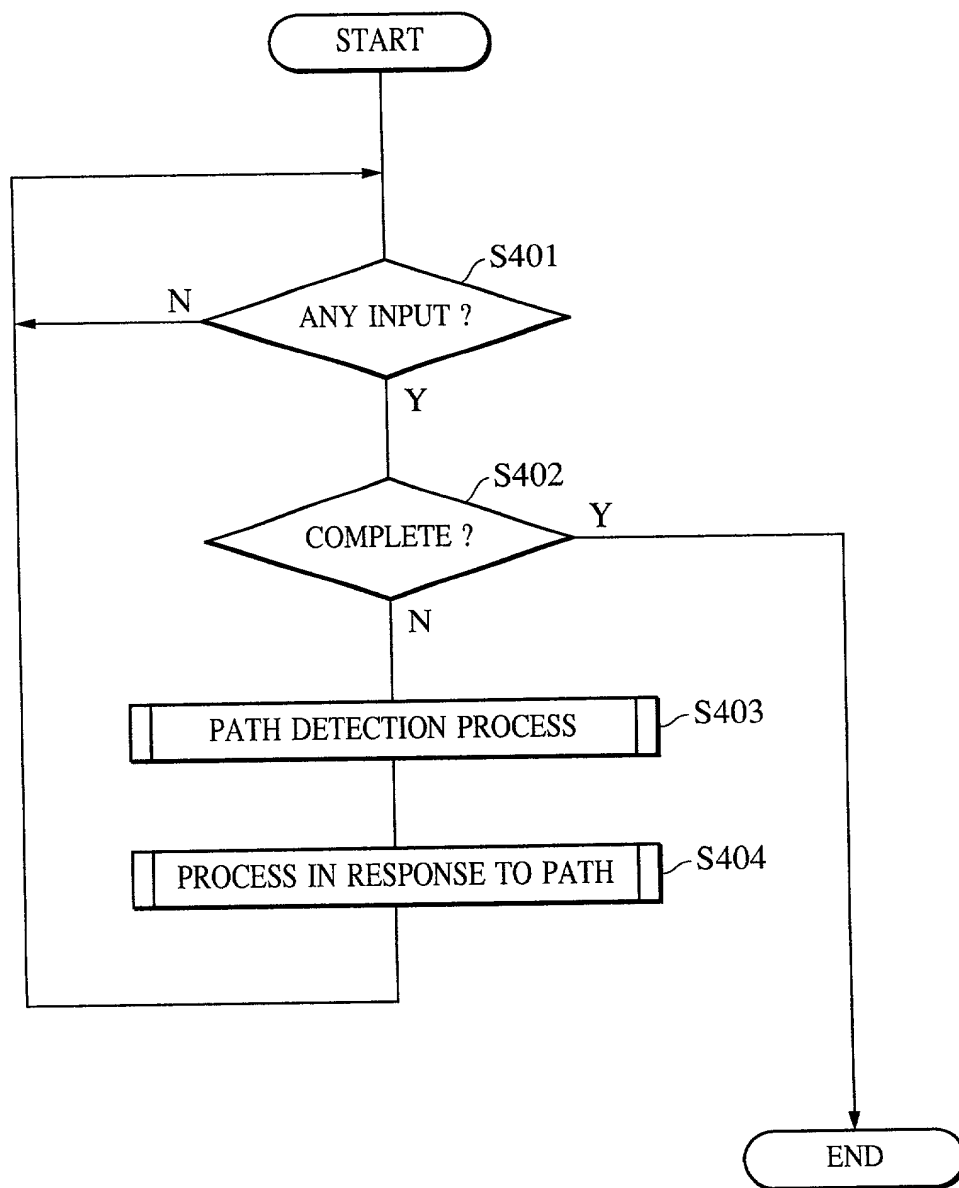


FIG. 4

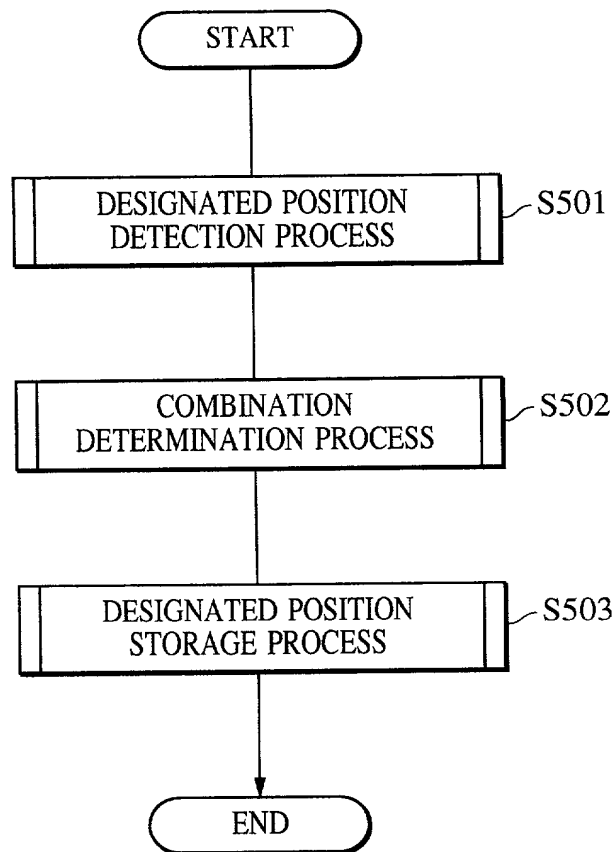


FIG. 5

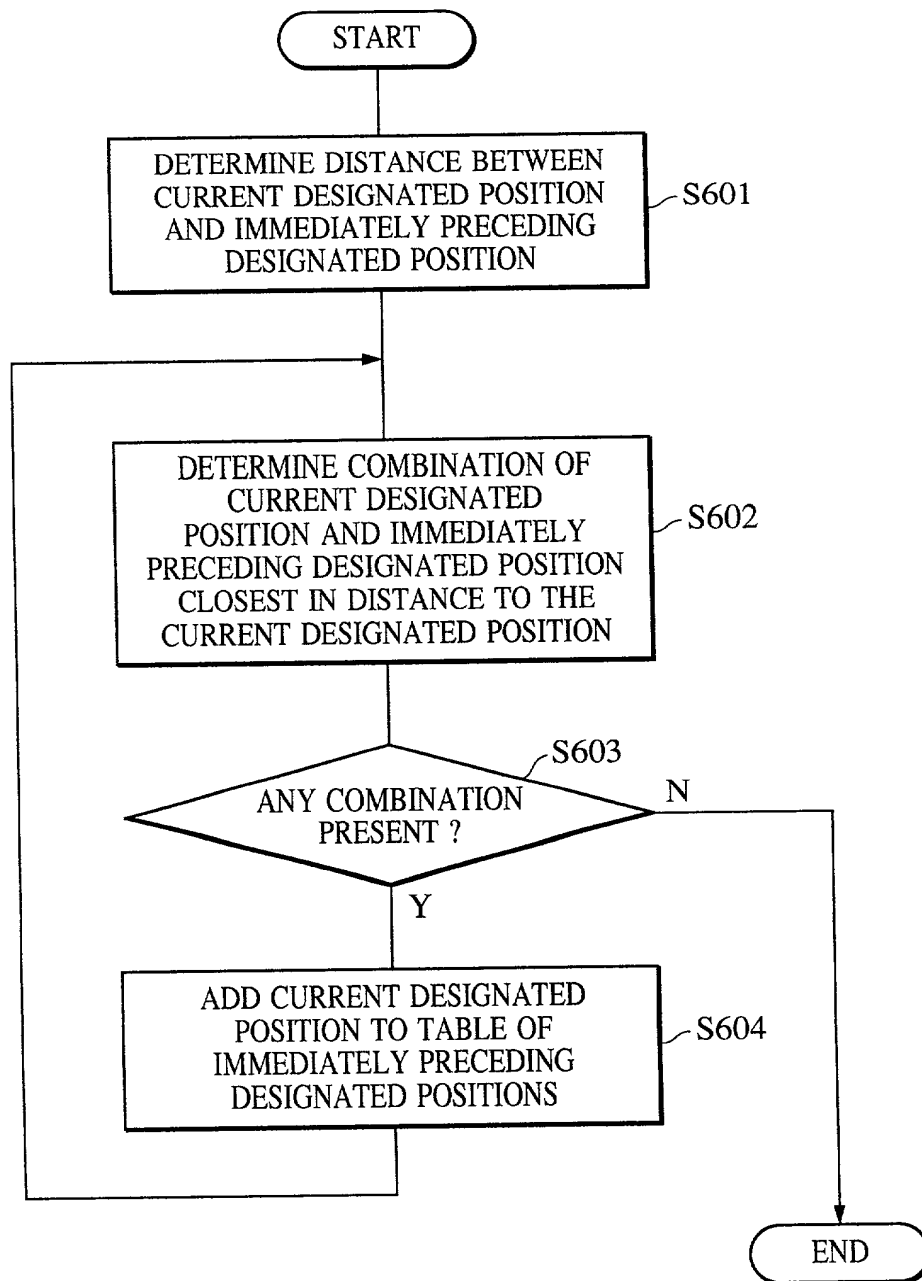


FIG. 6

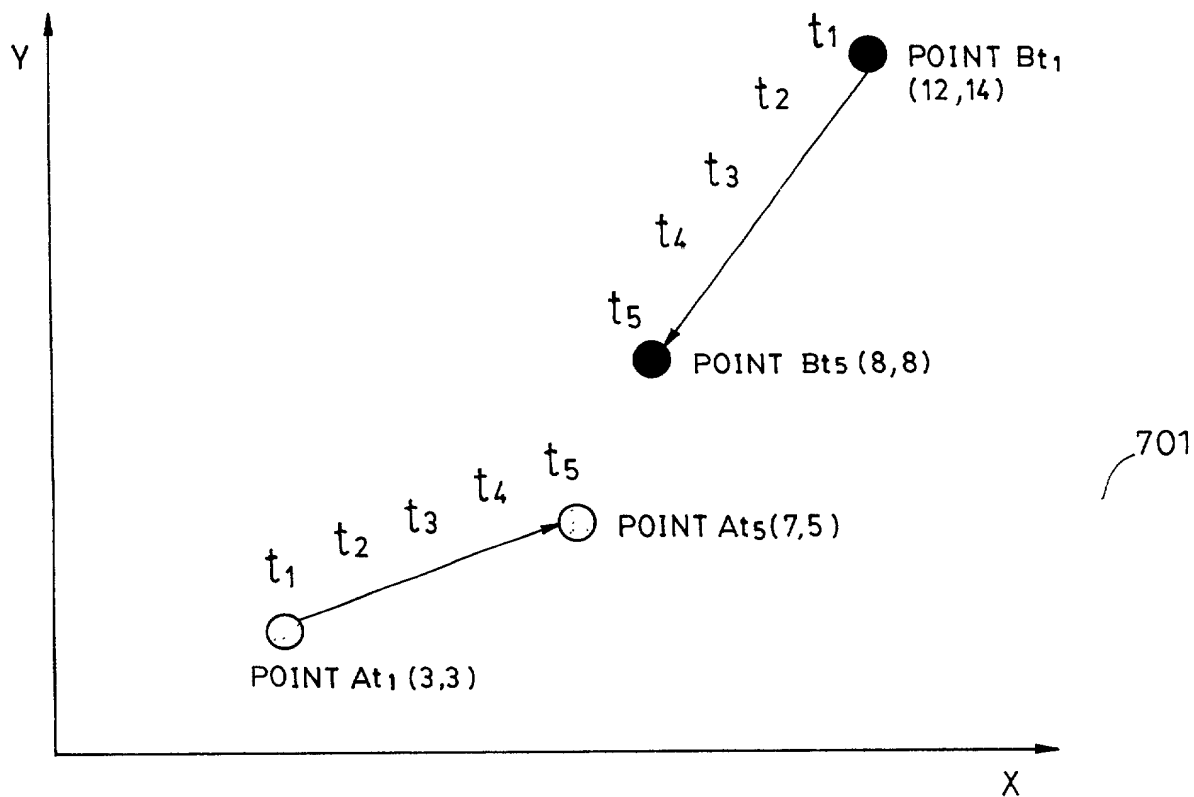


FIG. 7A

TABLE STORING POSITION DATA

POSITION COORDINATE  
DATA AT POINT A

	X	Y
t <sub>1</sub>	3	3
t <sub>2</sub>	4	3.5
t <sub>3</sub>	5	4
t <sub>4</sub>	6	4.5
t <sub>5</sub>	7	5

702

POSITION COORDINATE  
DATA AT POINT B

	X	Y
t <sub>1</sub>	12	14
t <sub>2</sub>	11	12.5
t <sub>3</sub>	10	11
t <sub>4</sub>	9	10
t <sub>5</sub>	8	9

703

FIG. 7B

FIG. 7C

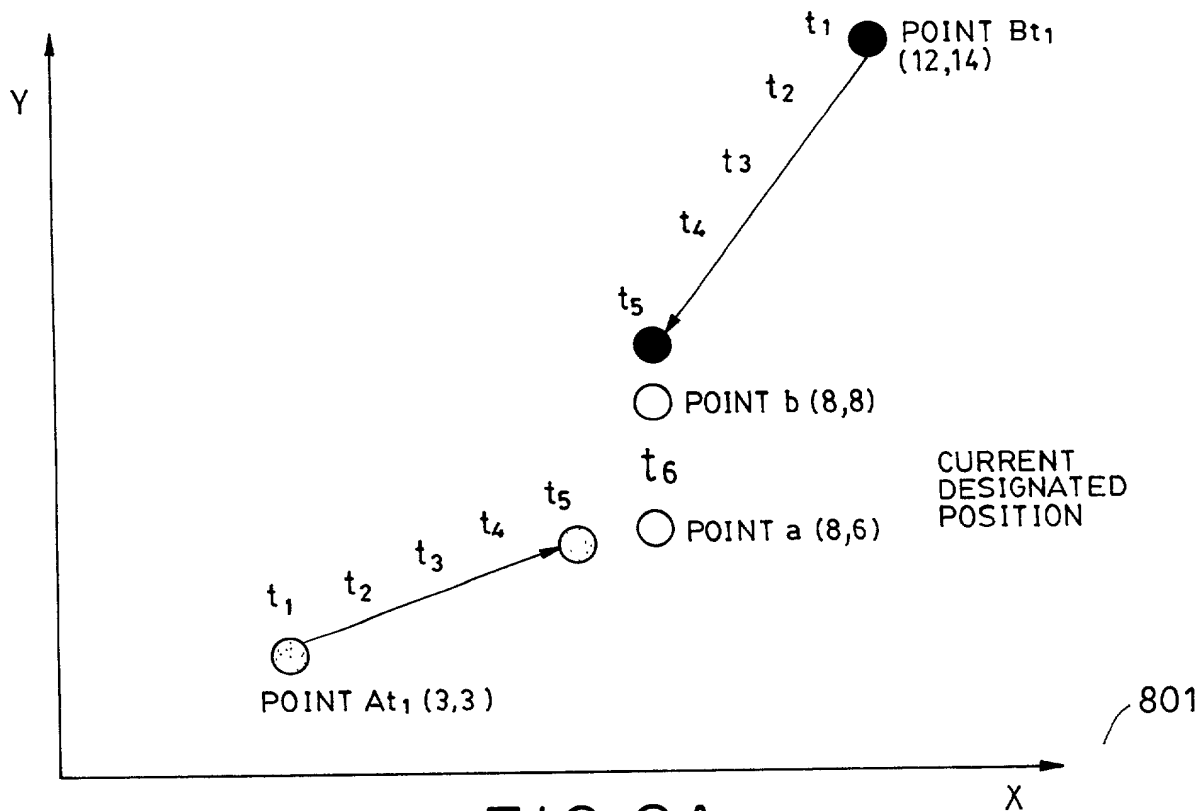


FIG. 8A

CURRENT DESIGNATED  
POSITION DATA (AT t<sub>6</sub>)

	X	Y
a	8	6
b	8	8

802

FIG. 8B



CURRENT DESIGNATED  
POSITION DATA

	X	Y
a	8	6
b	8	8

901

FIG. 9A



DISTANCE TO IMMEDIATELY PRECEDING DESIGNATED POSITION

902

	X	Y	DISTANCE TO DESIGNATED POSITION A	DISTANCE TO DESIGNATED POSITION B
a	8	6	1.414	4.123
b	8	8	3.601	1.000

FIG. 9B



DESIGNATED POSITION DATA  
AT EACH TIME POINT

903

	X	Y
t <sub>1</sub>	3	3
t <sub>2</sub>	4	3.5
t <sub>3</sub>	5	4
t <sub>4</sub>	6	4.5
t <sub>5</sub>	7	5
t <sub>6</sub>	8	6

FIG. 9C

904

	X	Y
t <sub>1</sub>	12	14
t <sub>2</sub>	11	12.5
t <sub>3</sub>	10	11
t <sub>4</sub>	9	10
t <sub>5</sub>	8	9
t <sub>6</sub>	8	8

FIG. 9D

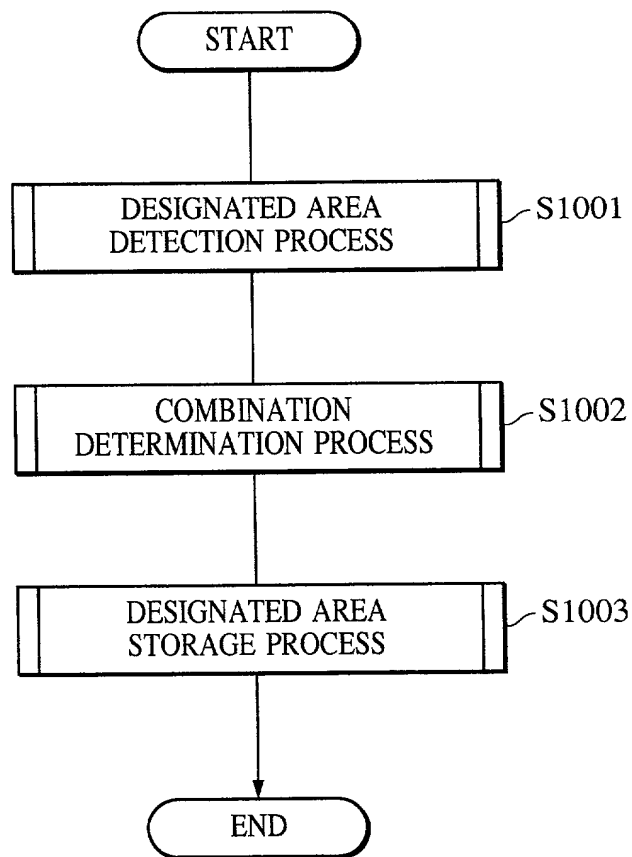


FIG. 10

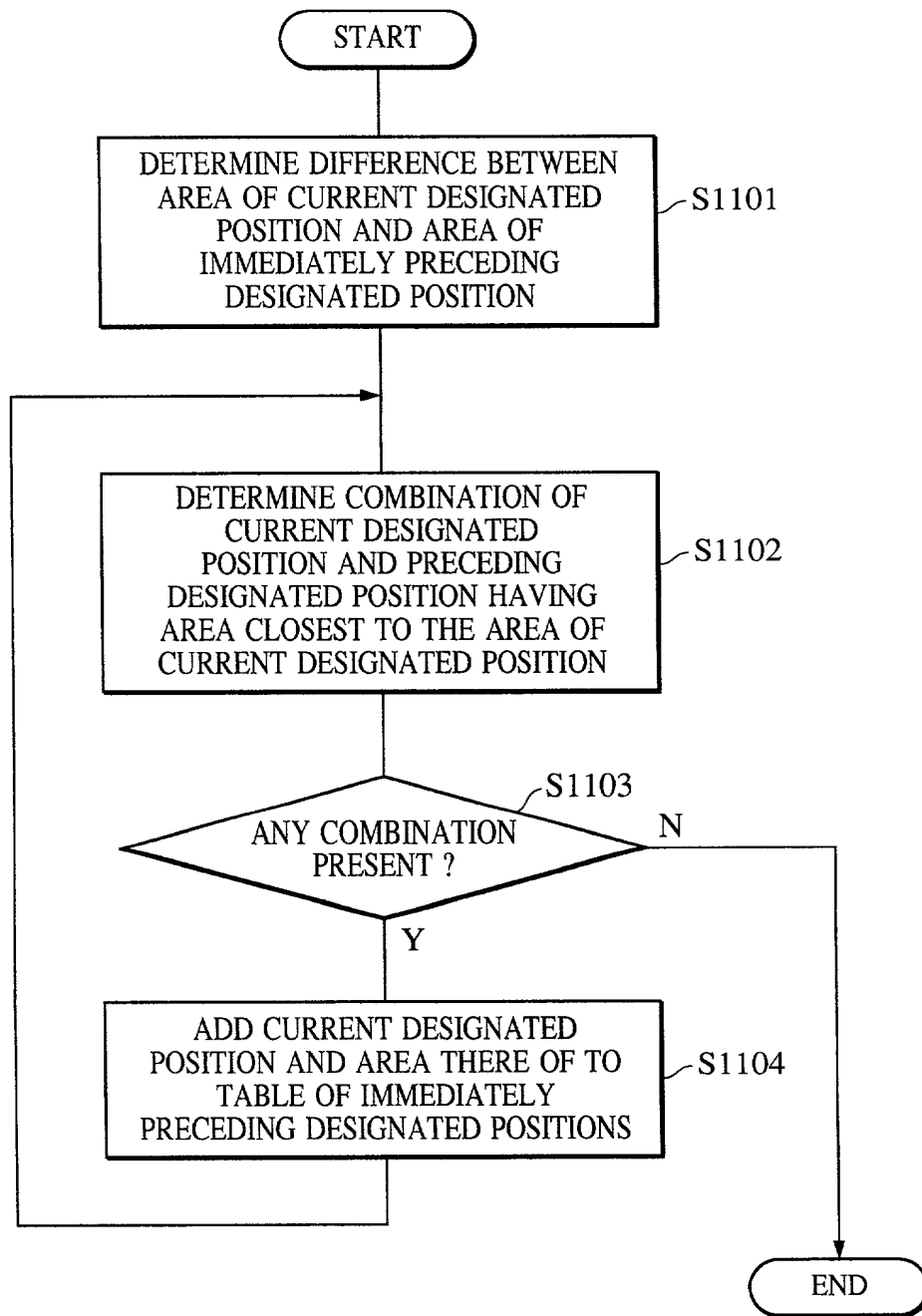


FIG. 11

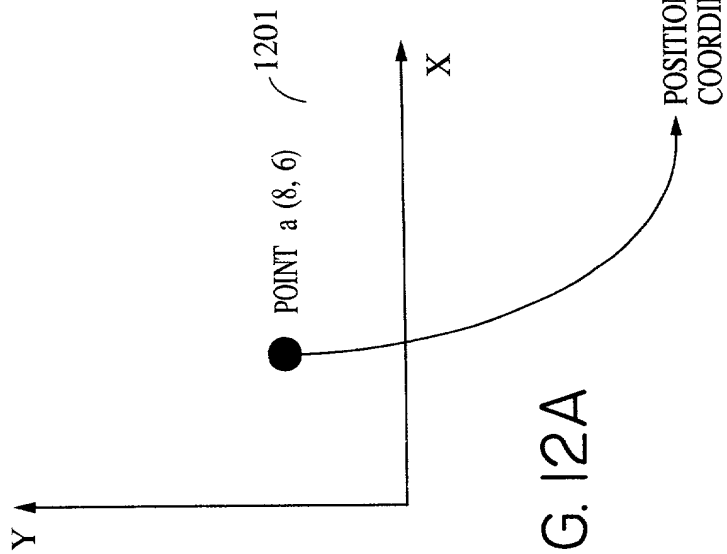


FIG. 12A

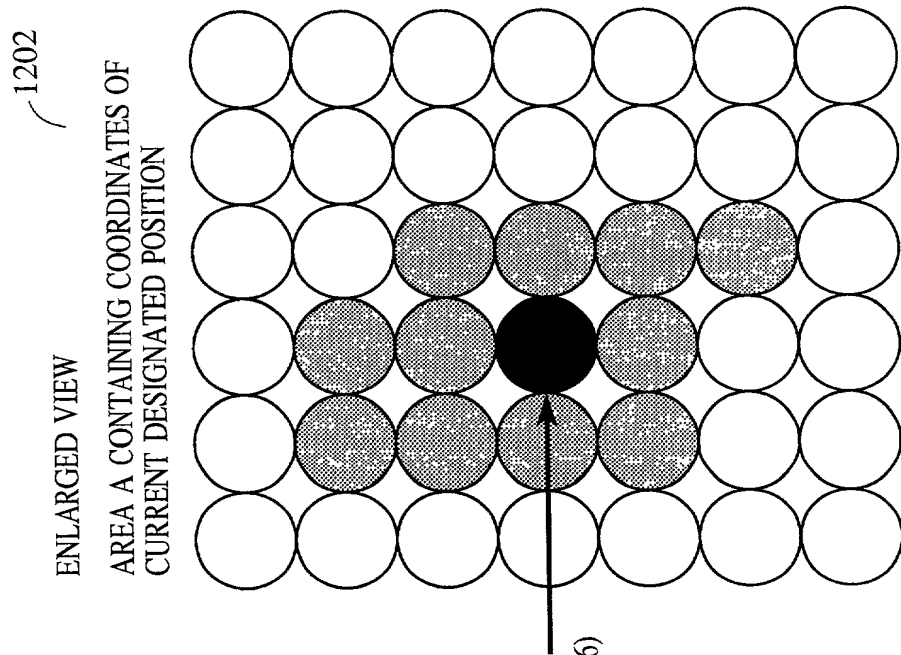


FIG. 12B

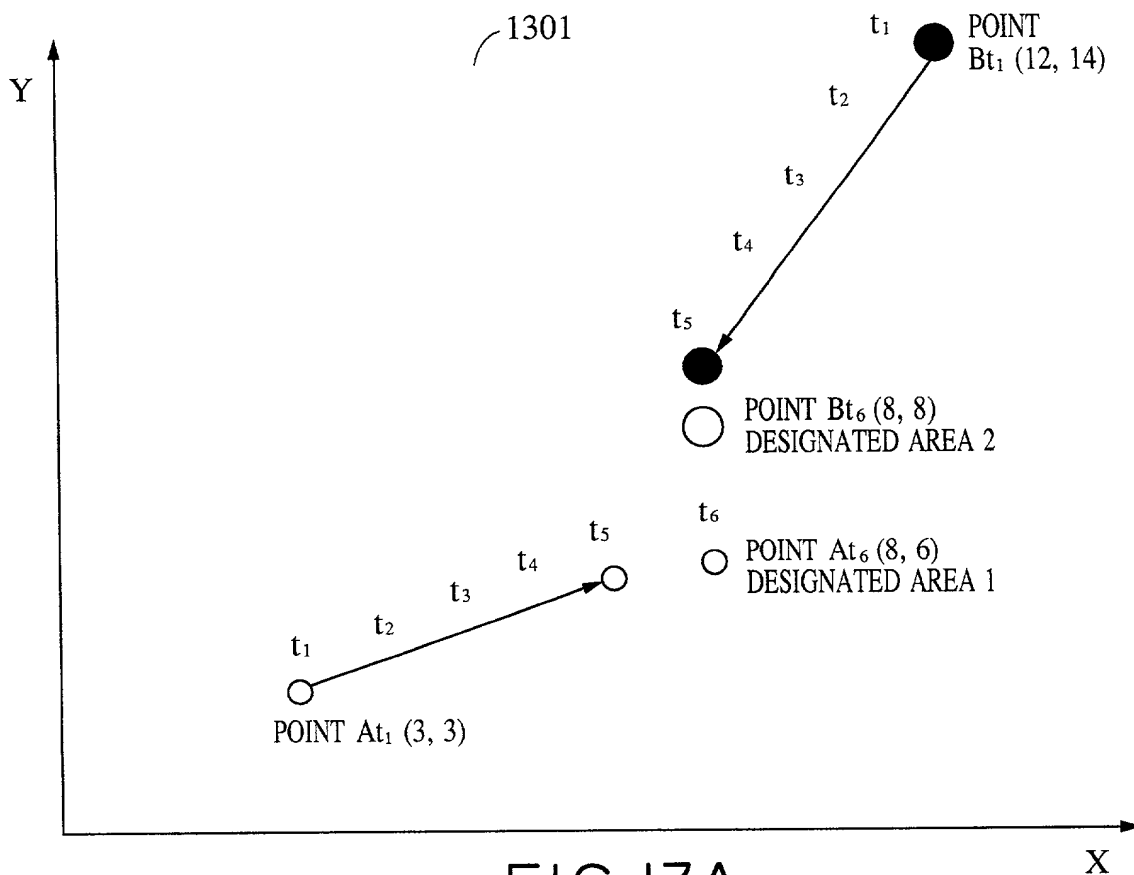


FIG. 13A

TABLES STORING DESIGNATED AREA DATA

AREA DATA AT POINT A

	X	Y	AREA
t <sub>1</sub>	3	3	12.5
t <sub>2</sub>	4	3.5	12.2
t <sub>3</sub>	5	4	12.5
t <sub>4</sub>	6	4.5	12.0
t <sub>5</sub>	7	5	11.0

FIG. 13B

AREA DATA AT POINT B

	X	Y	AREA
t <sub>1</sub>	12	14	19.5
t <sub>2</sub>	11	12.5	19.5
t <sub>3</sub>	10	11	20.0
t <sub>4</sub>	9	10	20.0
t <sub>5</sub>	8	9	20.0

FIG. 13C

CURRENT DESIGNATED AREA DATA (AT t<sub>6</sub>)

	X	Y	AREA
a	8	6	11.5
b	8	8	20.0

FIG. 13D

CURRENT AREA DATA (AT  $t_6$ )

	X	Y	AREA
a	8	6	11.5
b	8	8	20.0

1401

FIG. 14A



DIFFERENCE BETWEEN CURRENT AND IMMEDIATELY PRECEDING DESIGNATED AREAS

	X	Y	AREA	DIFFERENCE FROM DESIGNATED AREA A	DIFFERENCE FROM DESIGNATED AREA B
a	8	6	11.5	0.5	9.0
b	8	8	20.0	9.0	0.5

1402

FIG. 14B



TABLES STORING DESIGNATED AREA DATA

	X	Y	AREA
$t_1$	3	3	12.5
$t_2$	4	3.5	12.2
$t_3$	5	4	12.5
$t_4$	6	4.5	12.0
$t_5$	7	5	11.0
$t_6$	8	6	11.5

1403

	X	Y	AREA
$t_1$	12	14	19.5
$t_2$	11	12.5	19.5
$t_3$	10	11	20.0
$t_4$	9	10	20.0
$t_5$	8	9	20.0
$t_6$	8	8	20.5

1404

FIG. 14C

FIG. 14D

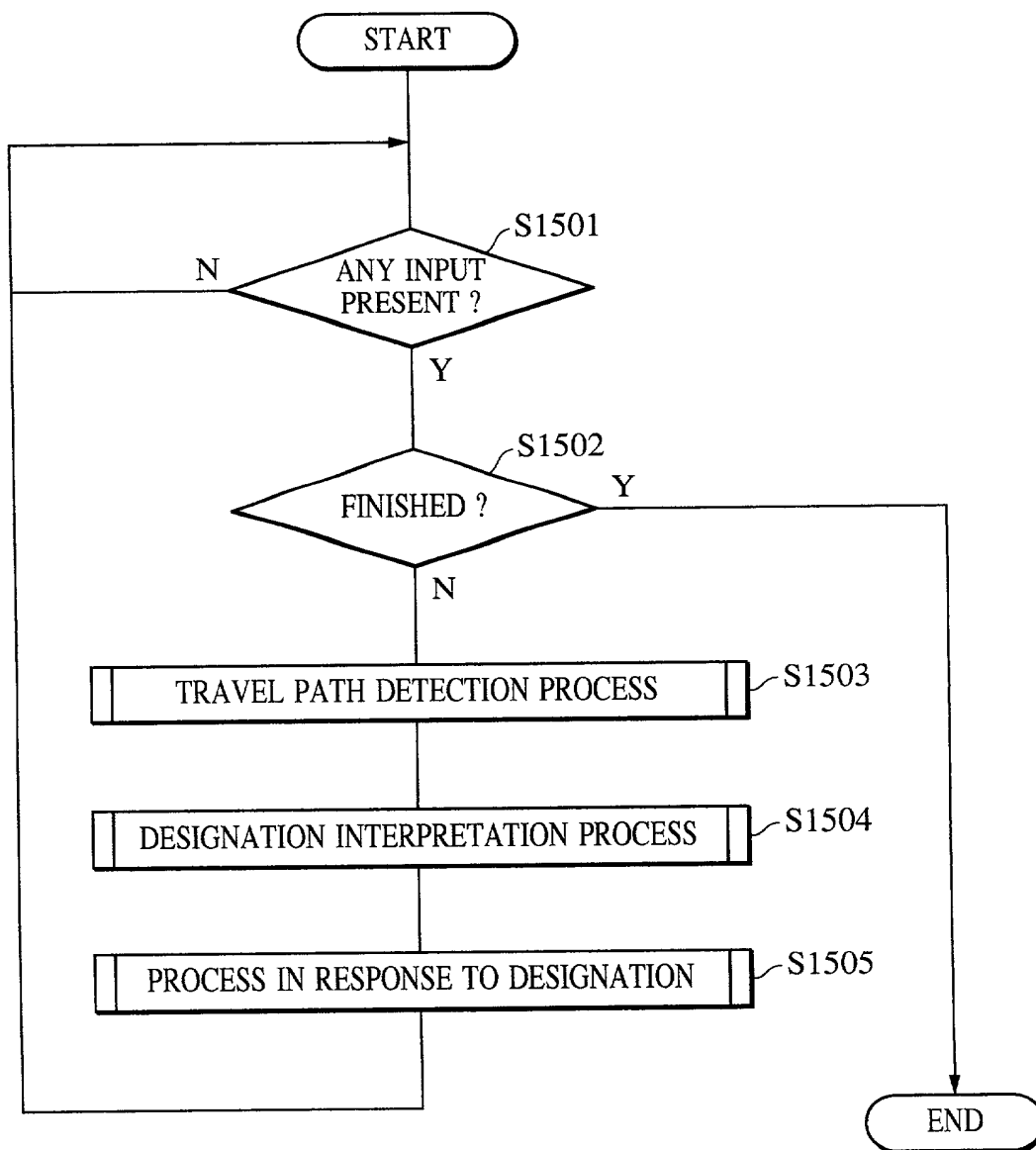


FIG. 15

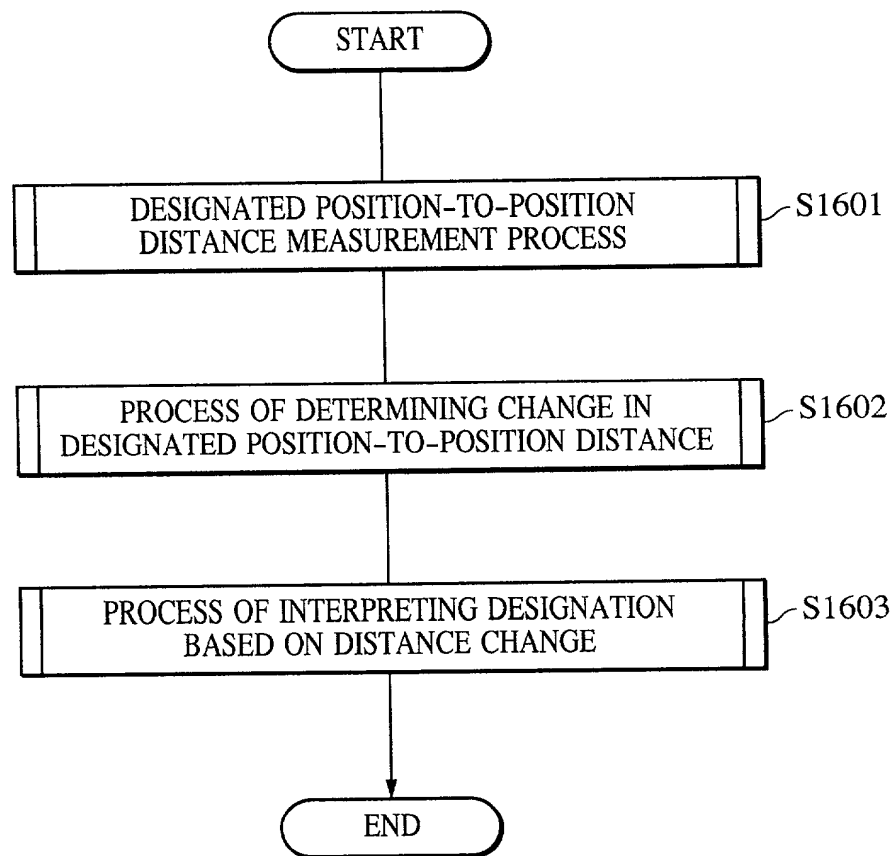


FIG. 16



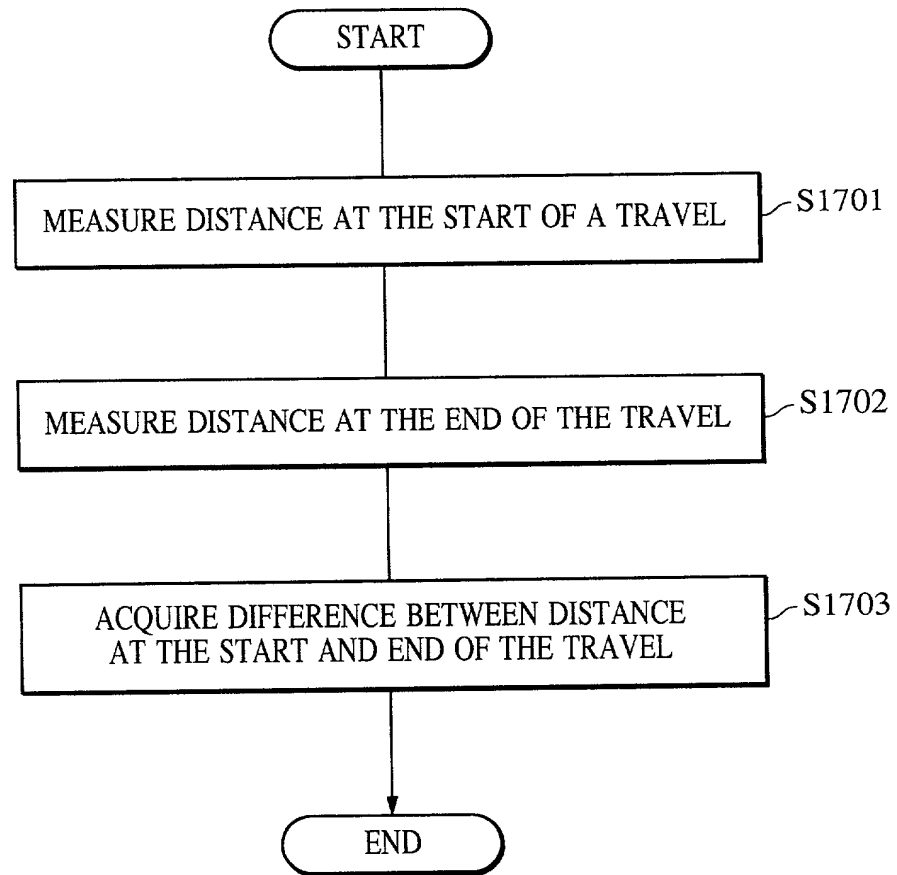


FIG. 17

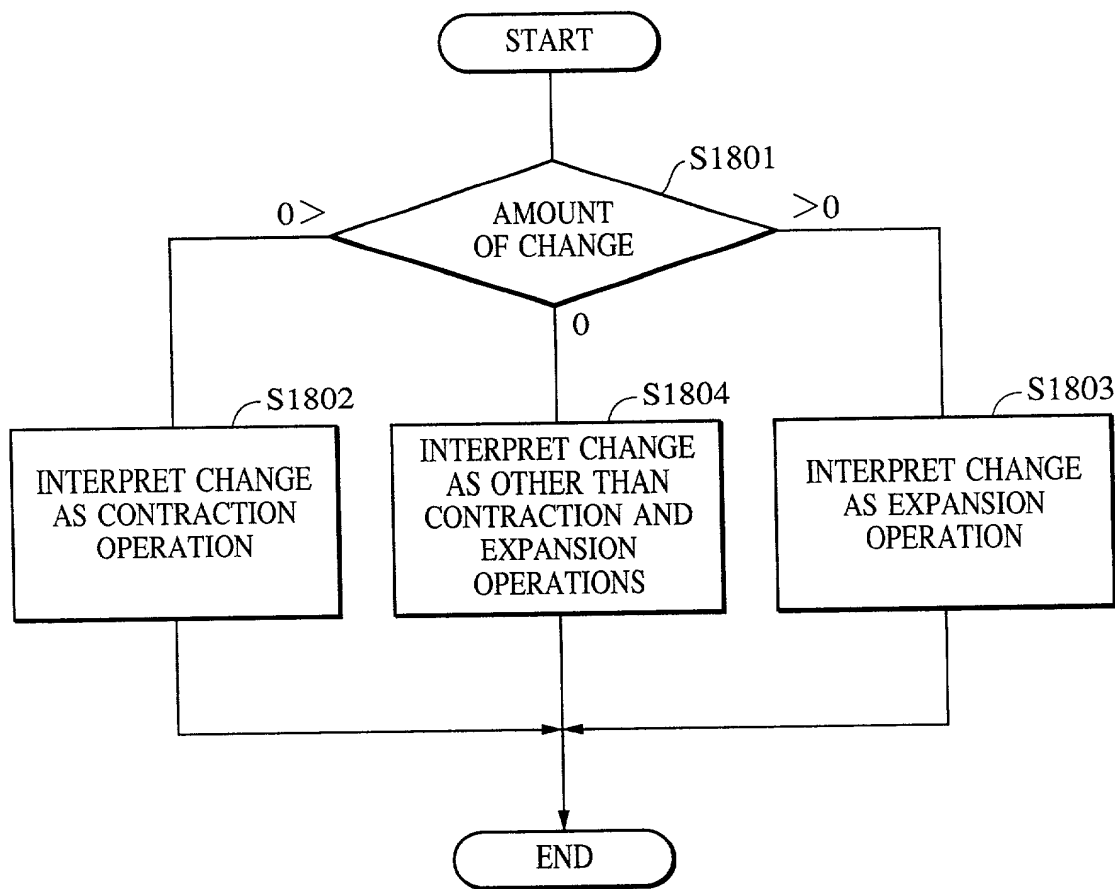
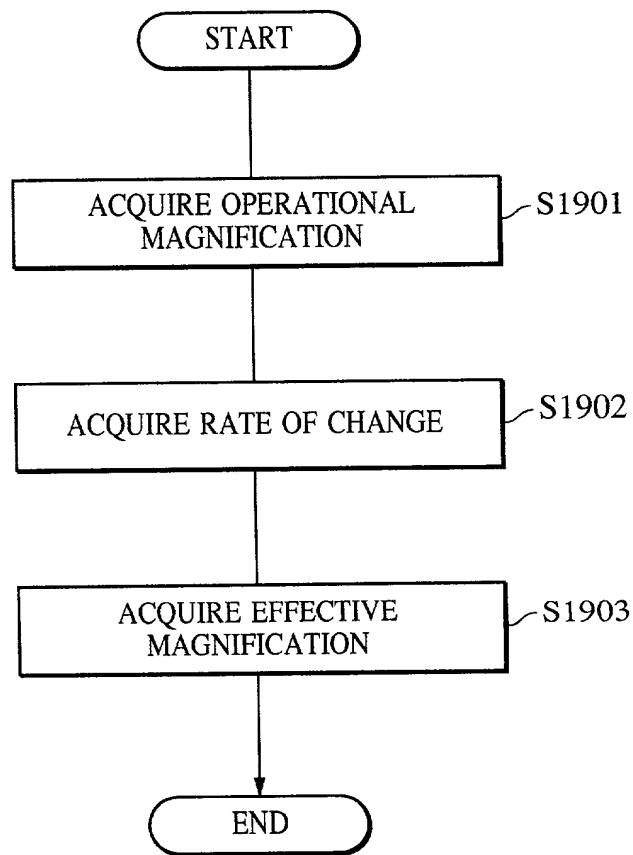


FIG. 18



$$\text{EFFECTIVE MAGNIFICATION} = 100 - (100 - \text{OPERATIONAL MAGNIFICATION}) \times \text{RATE OF CHANGE } \alpha$$

FIG. 19

CONTRACTION OPERATION

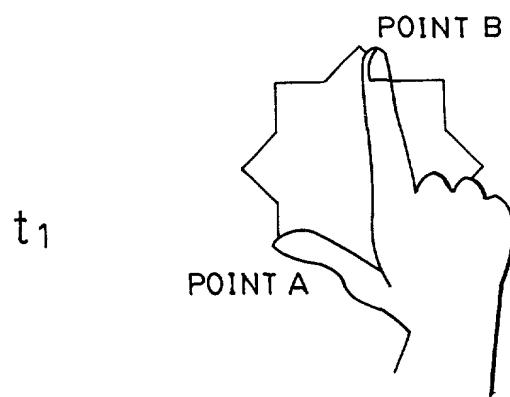


FIG. 20A

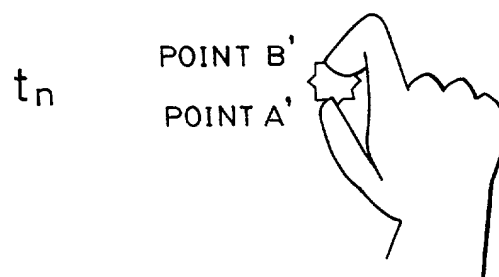


FIG. 20B

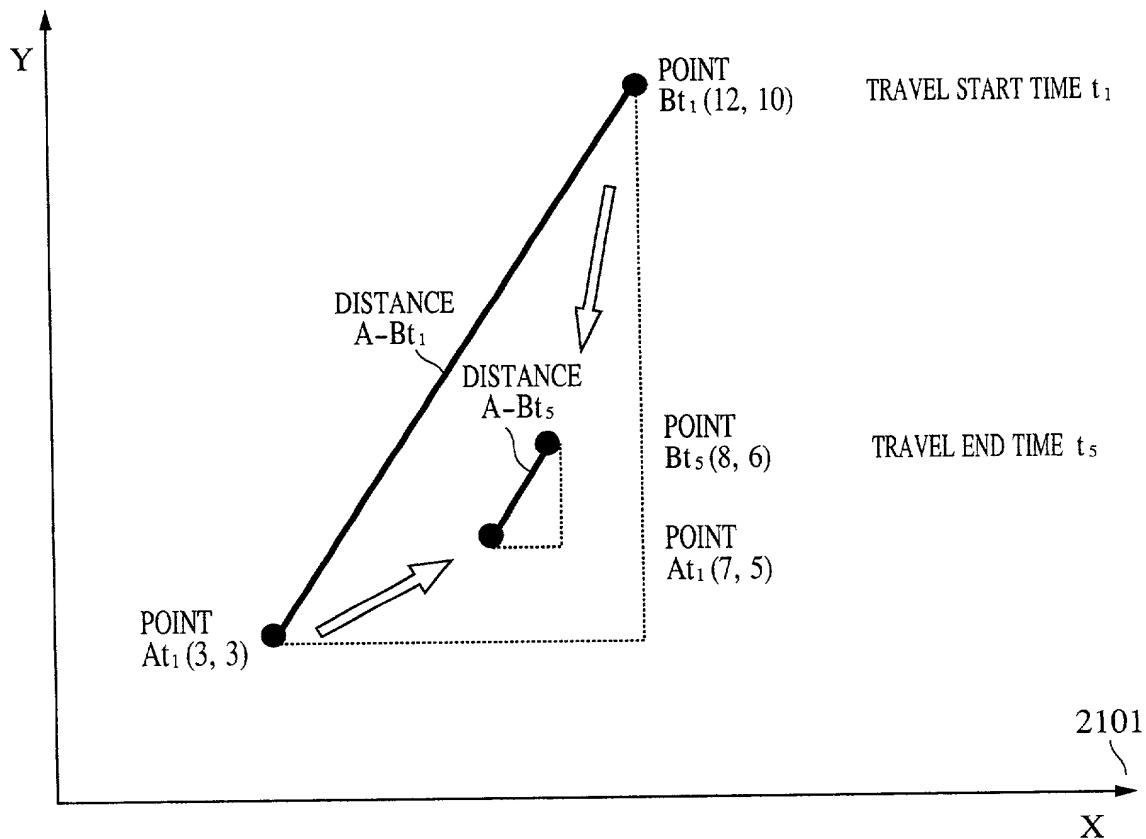


FIG. 21A

DISTANCE BETWEEN DESIGNATED POSITIONS A AND B,  
AND AMOUNT OF CHANGE

	DISTANCE BETWEEN A AND B	MAGNIFICATION (DISTANCE $t_n$ /DISTANCE $t_1$ )
$t_1$	15.000	100%
$t_2$	11.011	73%
$t_3$	7.810	52%
$t_4$	3.905	26%
$t_5$	1.118	7%

2102

FIG. 21B

EXPANSION OPERATION

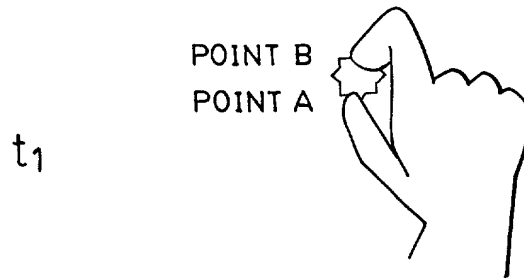


FIG. 22A

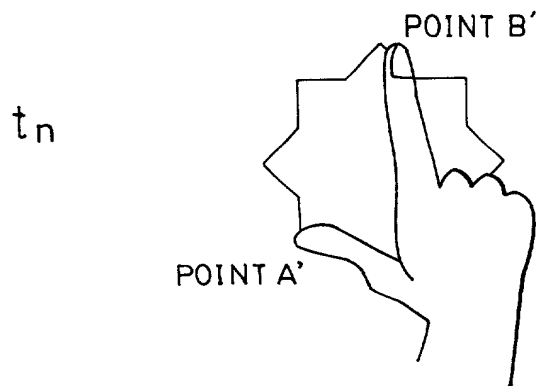


FIG. 22B

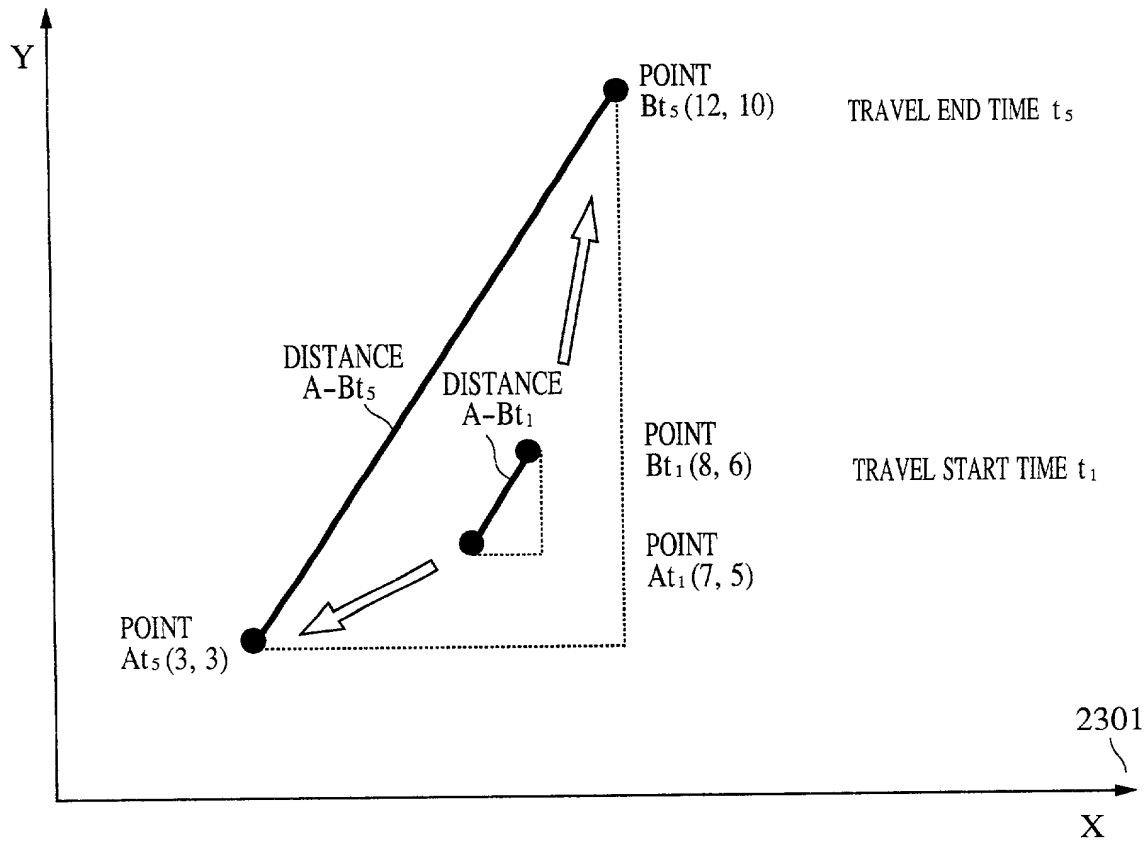


FIG. 23A

DISTANCE BETWEEN DESIGNATED POSITIONS A AND B,  
AND AMOUNT OF CHANGE

	DISTANCE BETWEEN A AND B	MAGNIFICATION (DISTANCE $t_n$ /DISTANCE $t_1$ )
$t_1$	1.118	100%
$t_2$	4.081	365%
$t_3$	7.080	633%
$t_4$	9.552	854%
$t_5$	11.402	1020%

2302

FIG. 23B

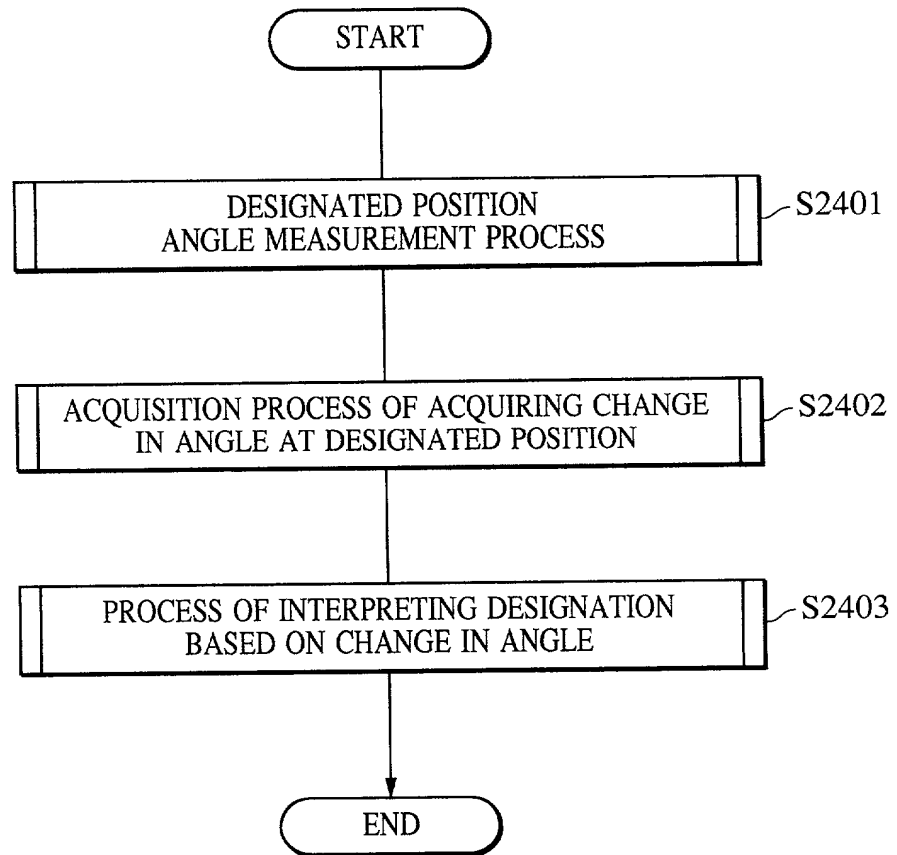


FIG. 24



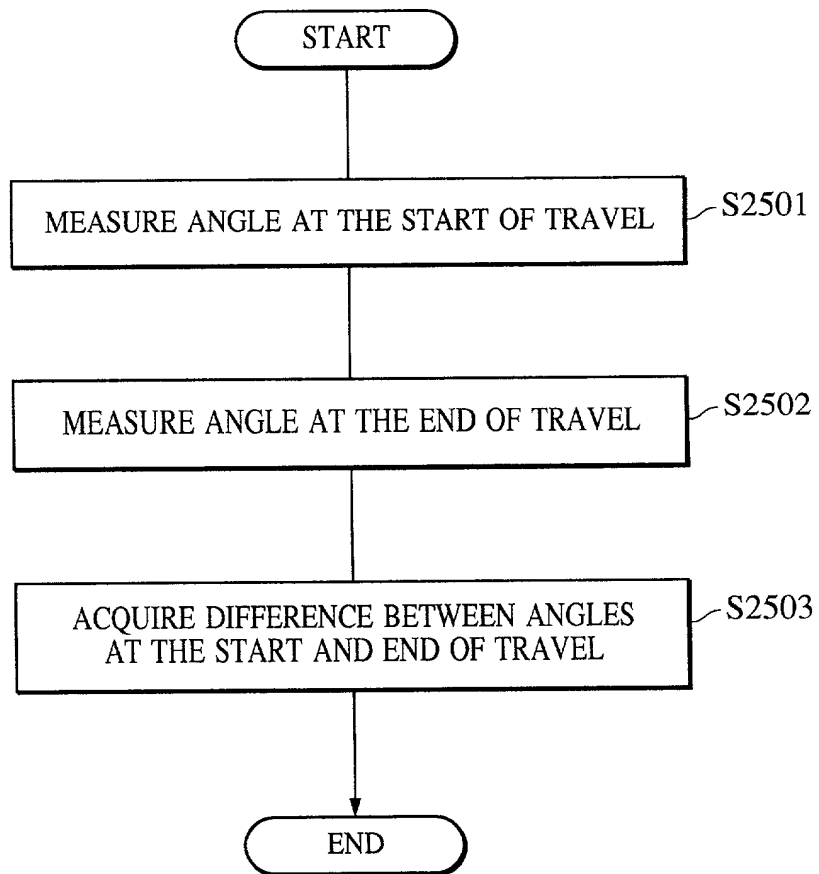


FIG. 25

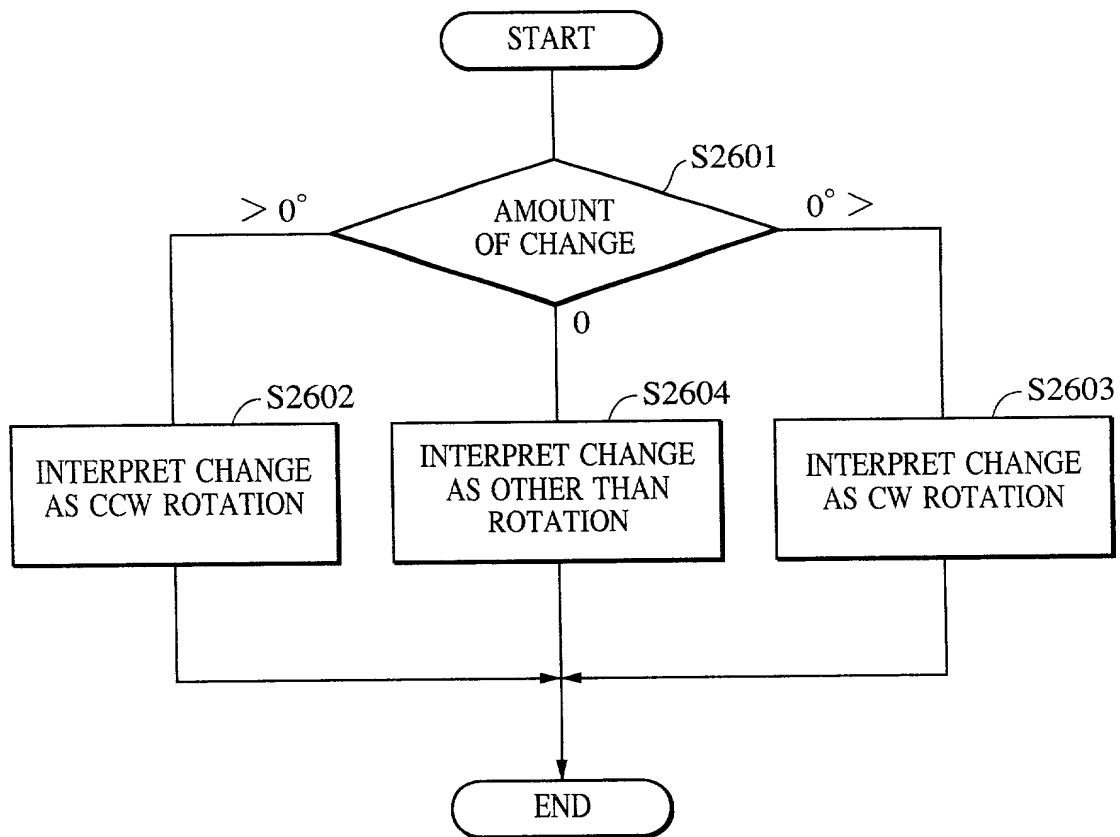


FIG. 26

CW ROTATION

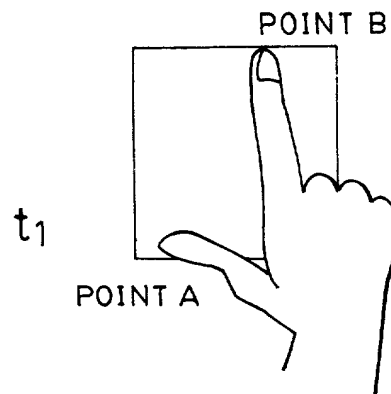


FIG. 27A

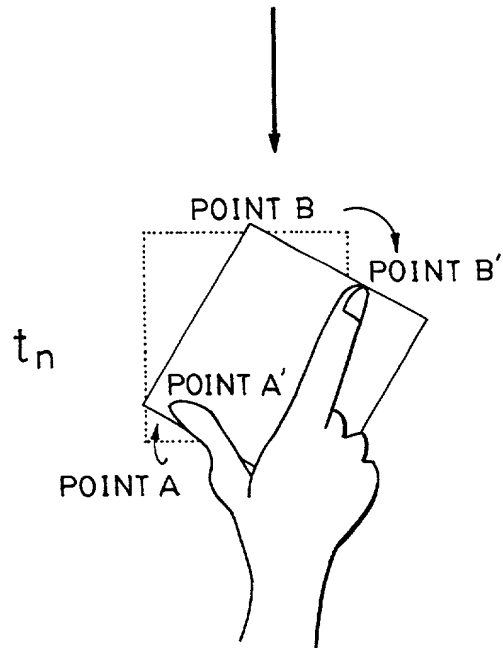
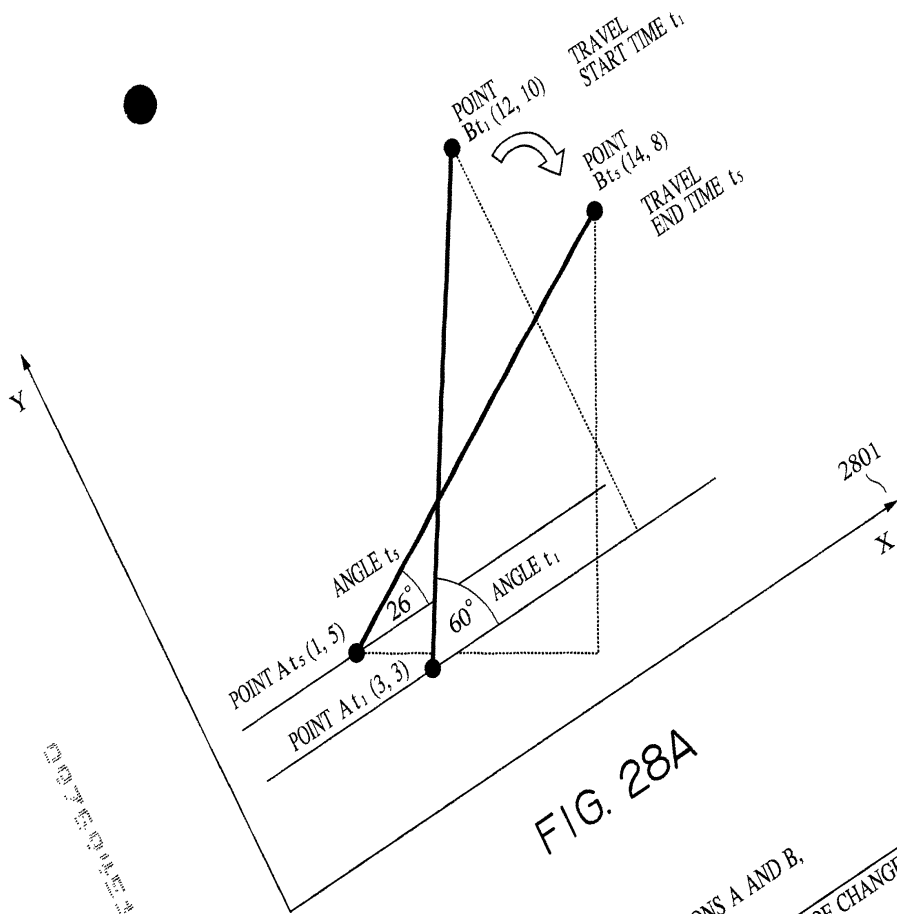


FIG. 27B



ANGLE OF DESIGNATED POSITIONS A AND B,  
AND AMOUNT OF CHANGE

	ANGLE OF LINE AB	AMOUNT OF CHANGE ( $t_2 - t_1$ )
$t_1$	60	0
$t_2$	49	-11
$t_3$	40	-20
$t_4$	33	-27
$t_5$	26	-34

FIG. 28B

2802

CCW ROTATION

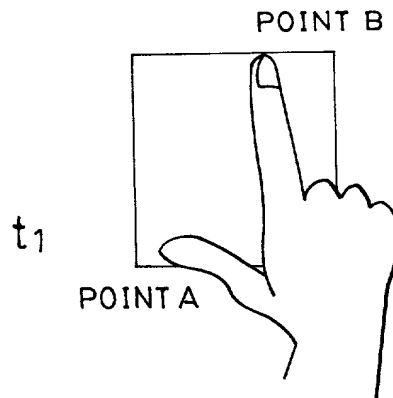


FIG. 29A

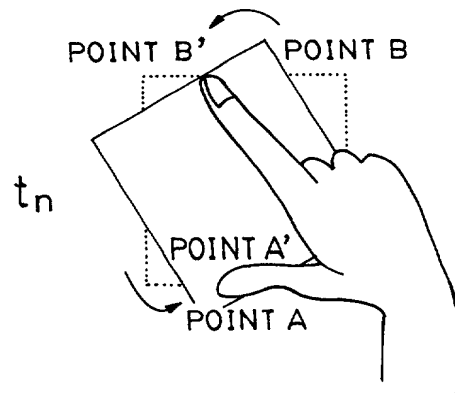
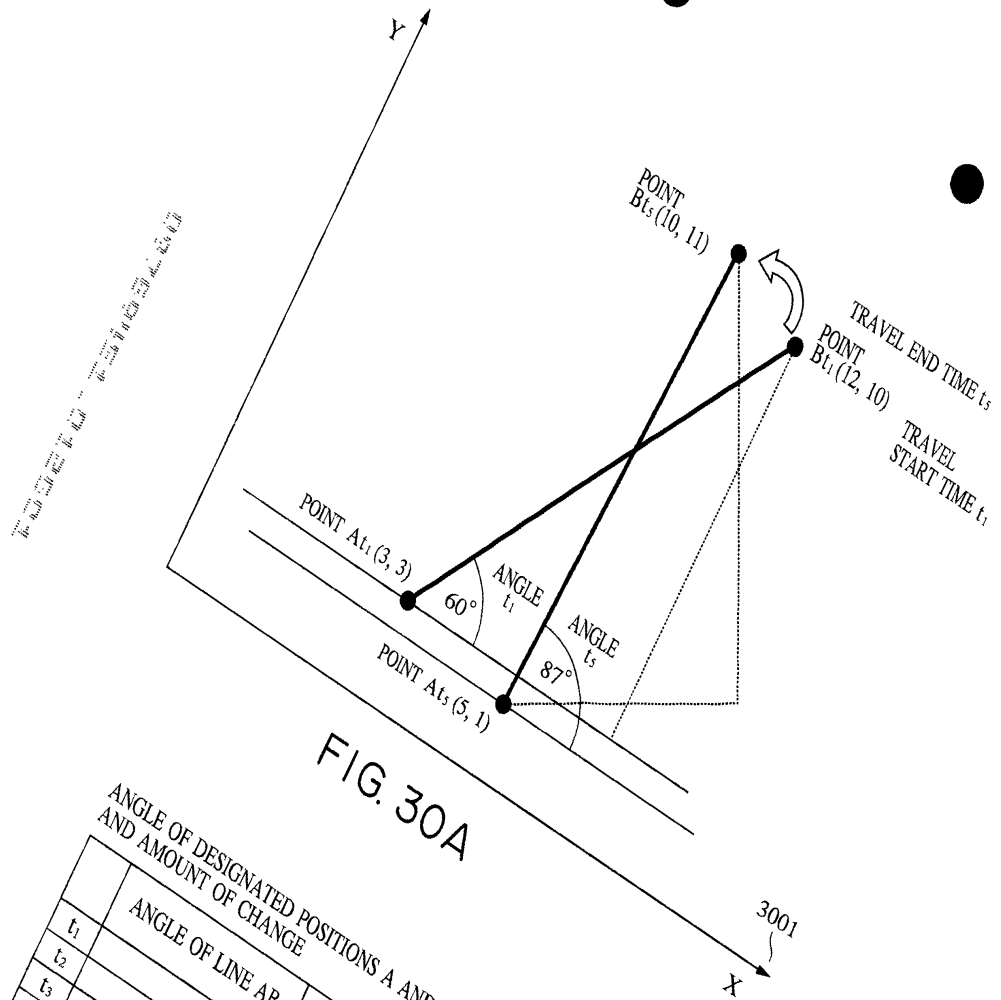


FIG. 29B



ANGLE OF DESIGNATED POSITIONS A AND B,  
AND AMOUNT OF CHANGE

	ANGLE OF LINE AB	AMOUNT OF CHANGE ( $t_n - t_1$ )
$t_1$	60	0
$t_2$	65	5
$t_3$	70	10
$t_4$	80	20
$t_5$	87	27

FIG. 30B

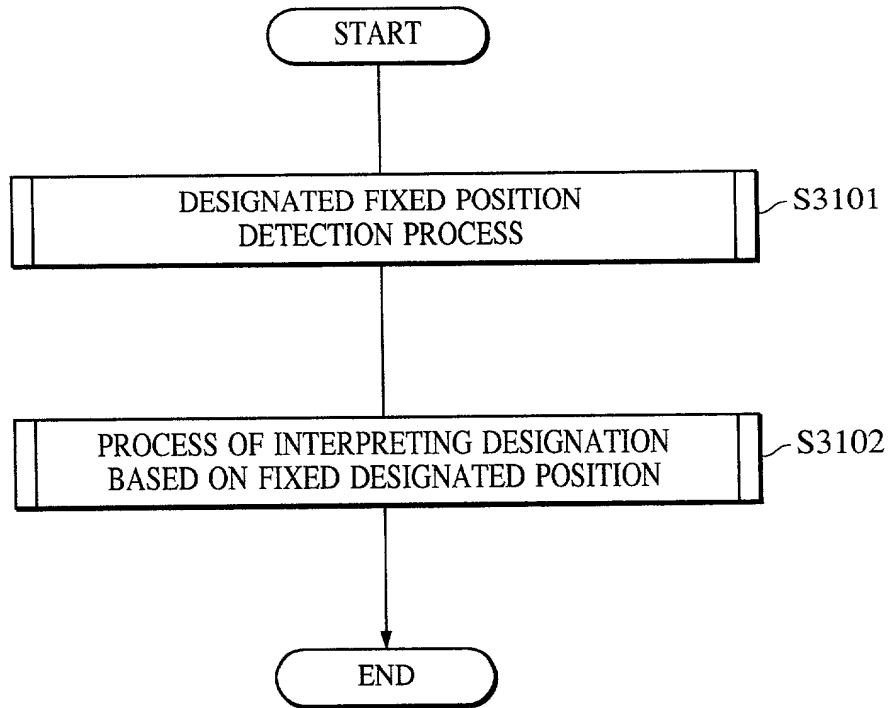


FIG. 31

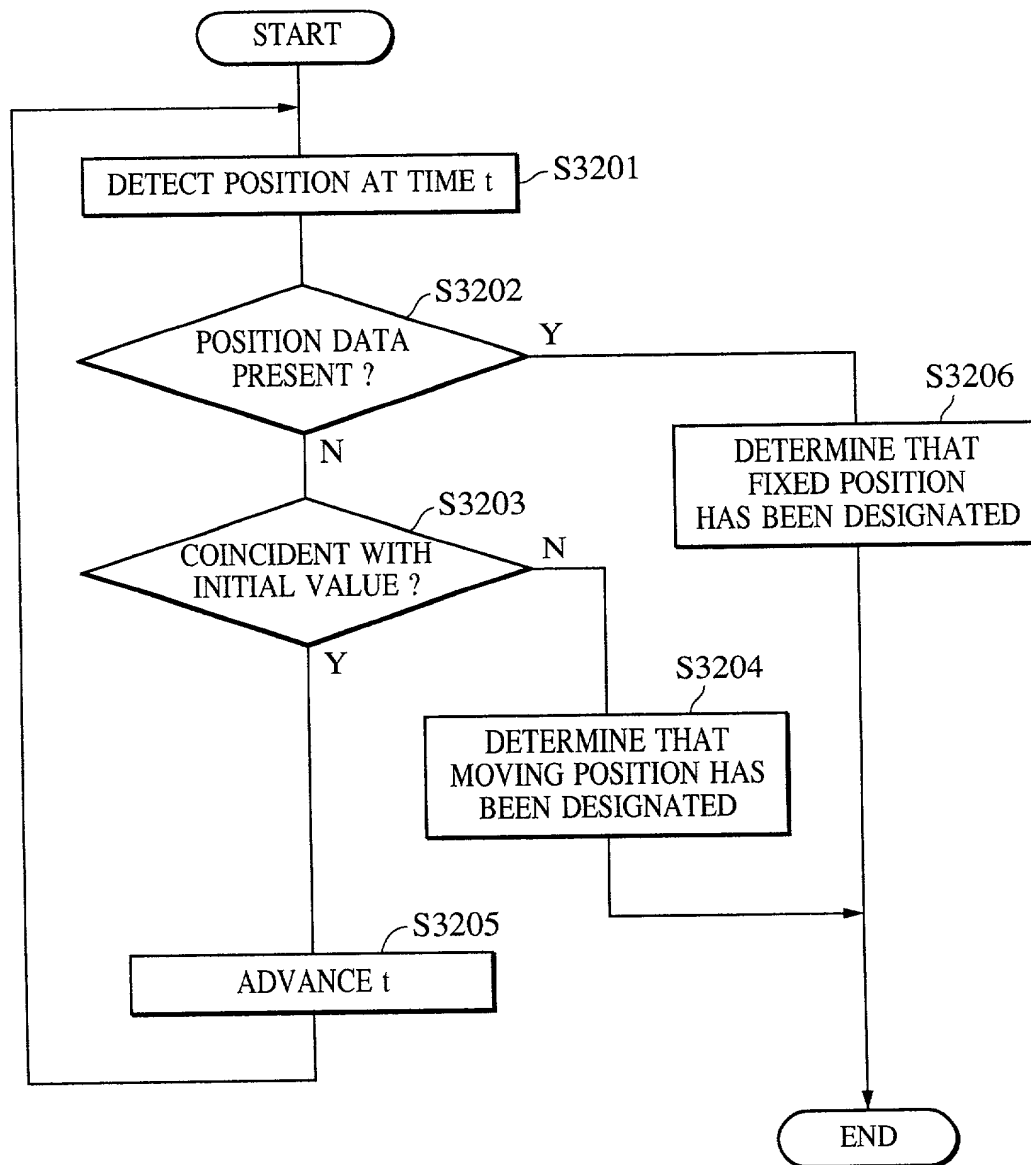


FIG. 32



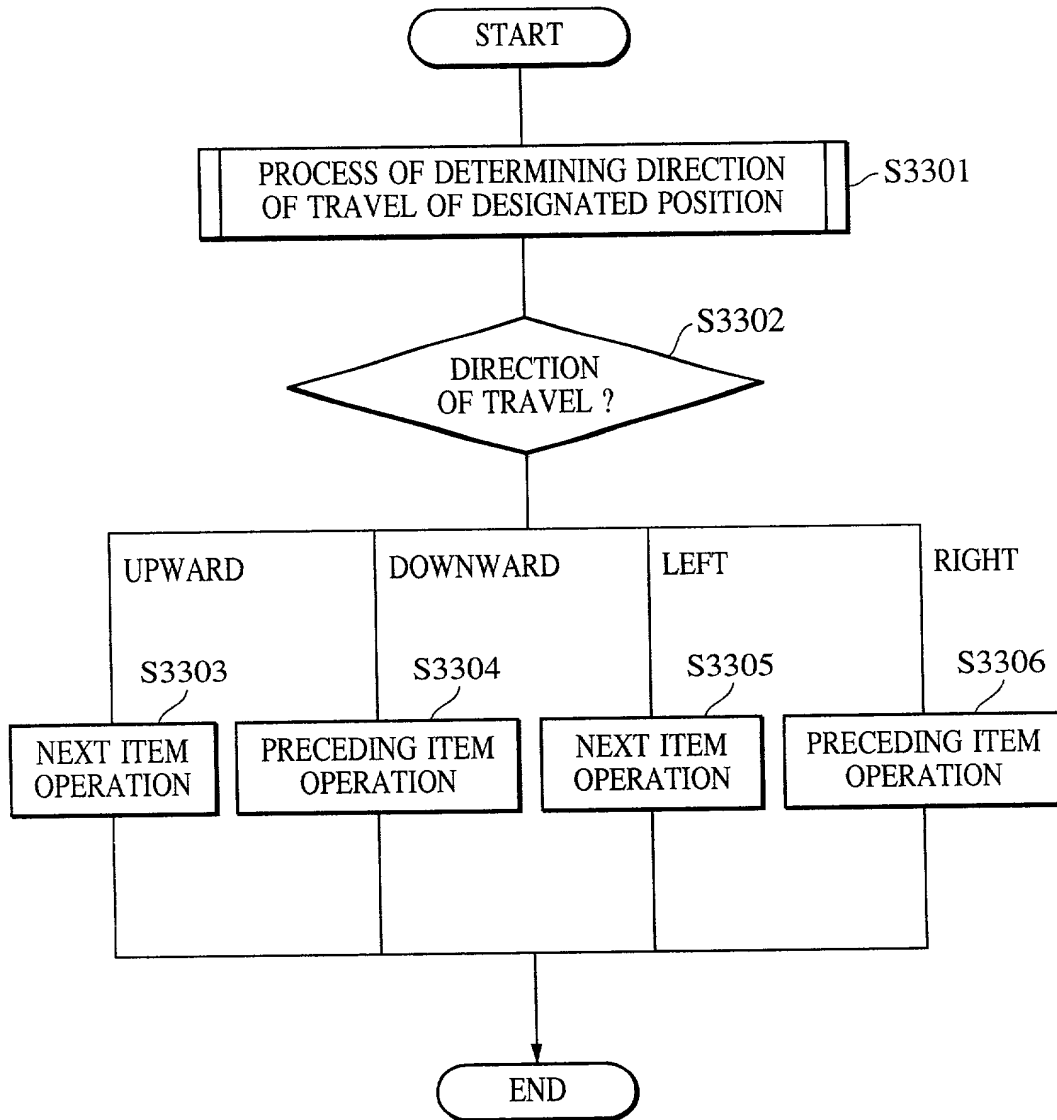


FIG. 33

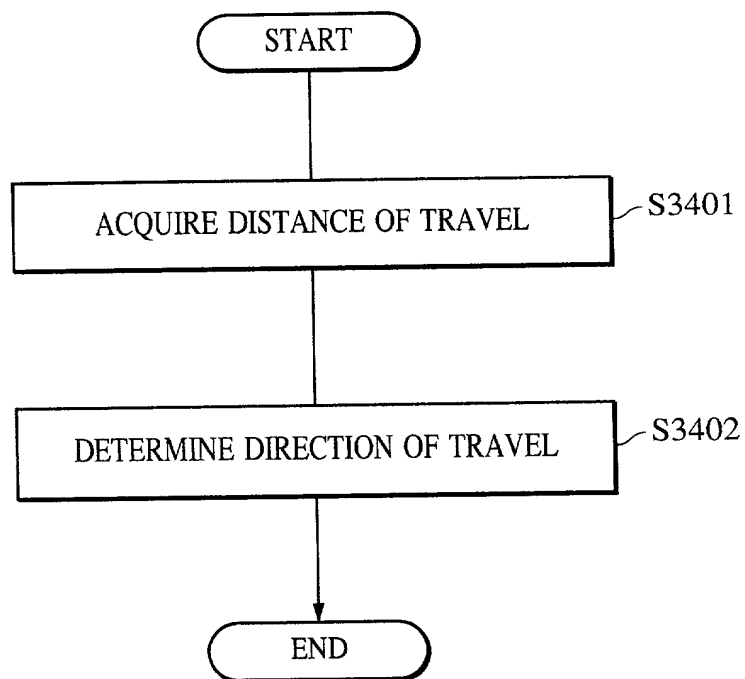


FIG. 34

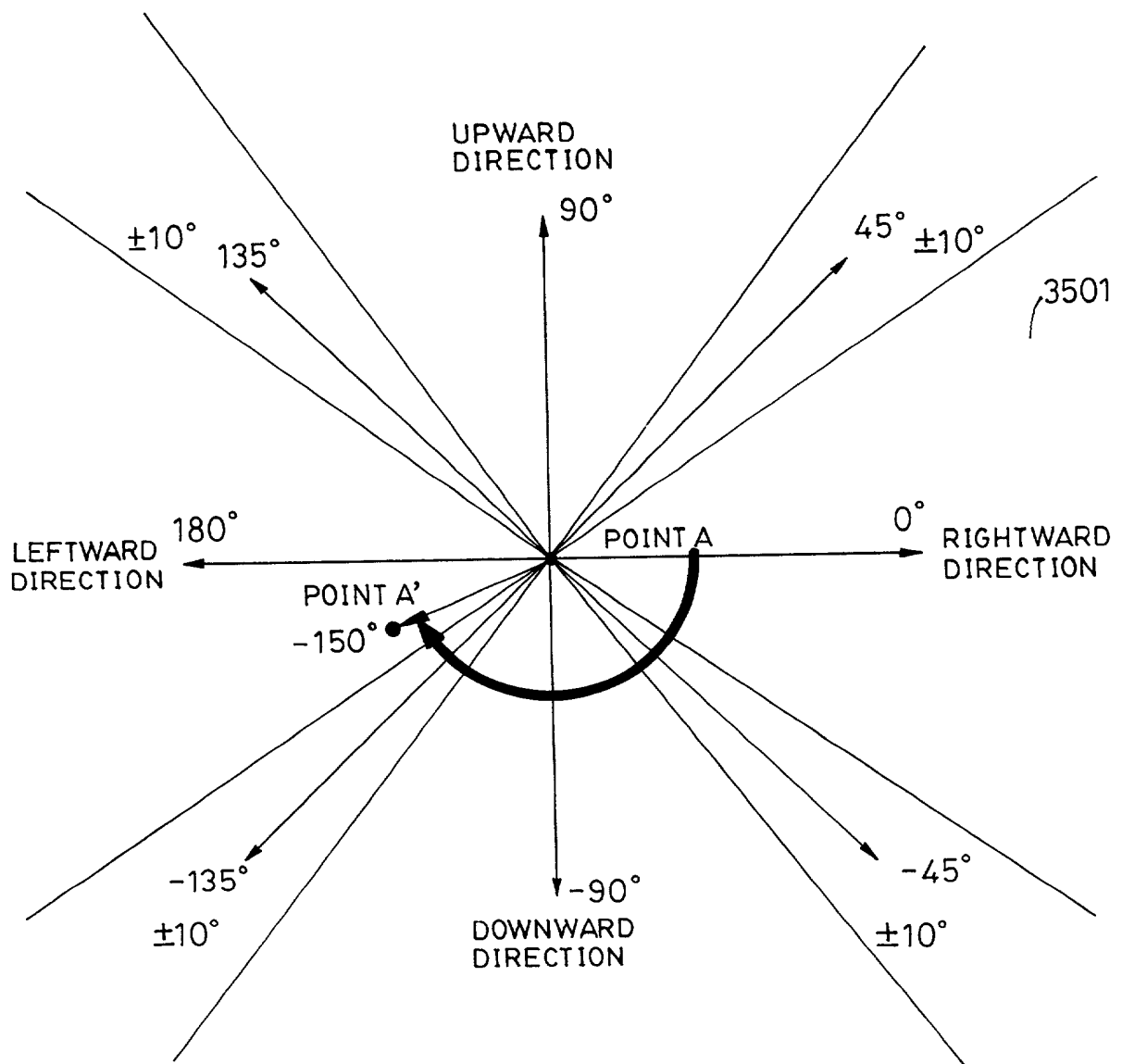


FIG. 35

LEFTWARD TRAVEL

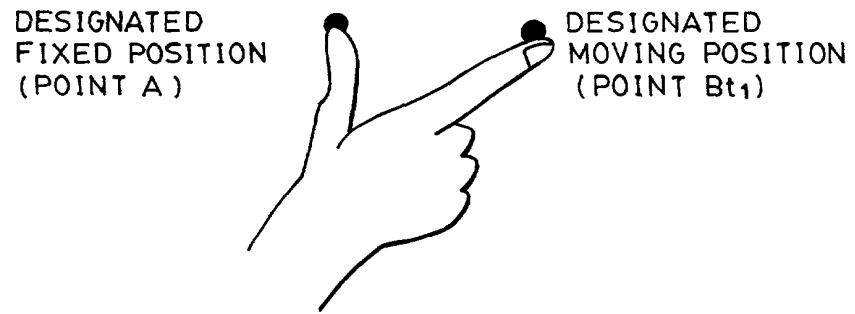


FIG. 36A

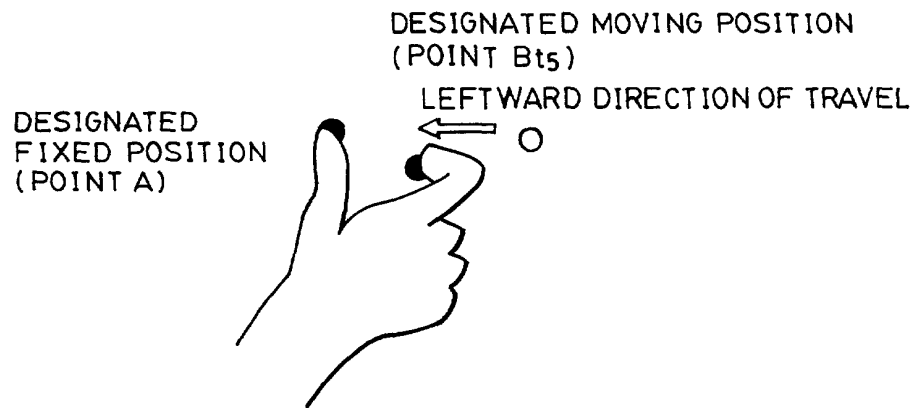


FIG. 36B

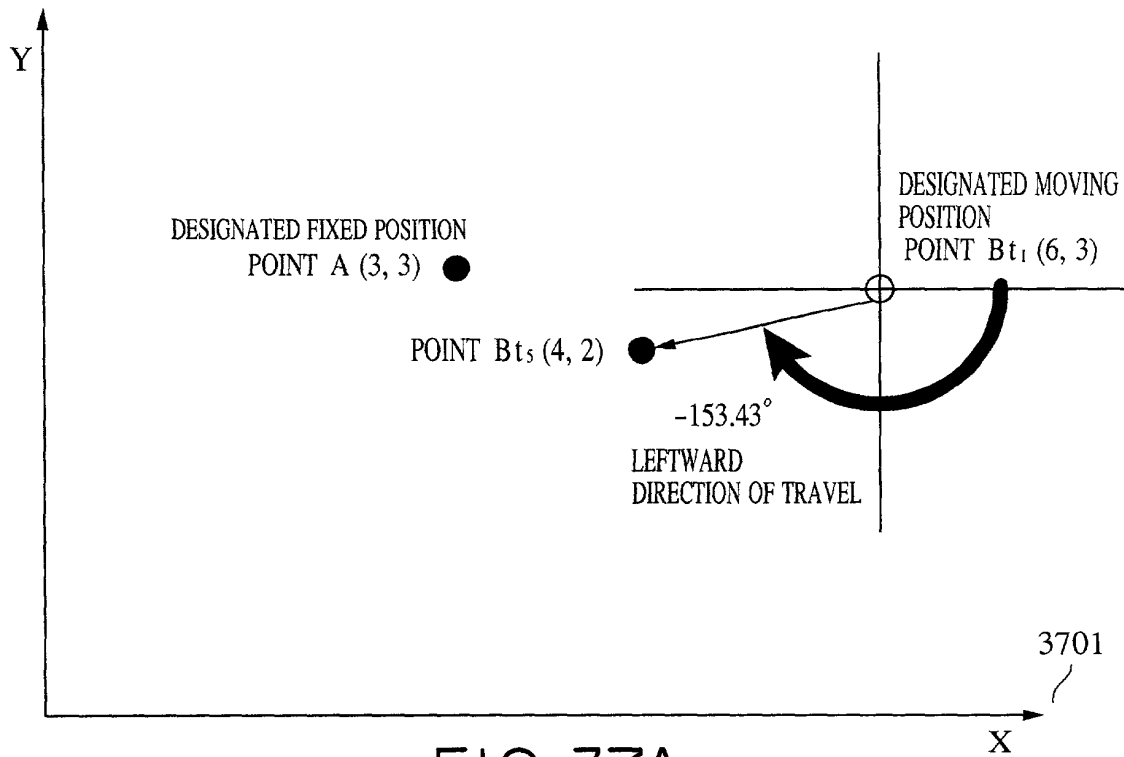


FIG. 37A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	3	3
t <sub>2</sub>	3	3
t <sub>3</sub>	3	3
t <sub>4</sub>	3	3
t <sub>5</sub>	3	3

FIG. 37B

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>	6.0	3.0
t <sub>2</sub>	5.3	2.3
t <sub>3</sub>	4.7	1.7
t <sub>4</sub>	4.3	1.2
t <sub>5</sub>	4.0	2.0

FIG. 37C

DESIGNATED POSITION TRAVEL DATA

	TRAVEL OF POINT A	TRAVEL OF POINT B	DIRECTION OF TRAVEL (DEGREES)
t <sub>1</sub>	0.000	0.000	-153.43
t <sub>2</sub>	0.000	0.000	-153.43
t <sub>3</sub>	0.000	1.862	-153.43
t <sub>4</sub>	0.000	2.453	-153.43
t <sub>5</sub>	0.000	2.236	153.43

FIG. 37D

UPWARD TRAVEL

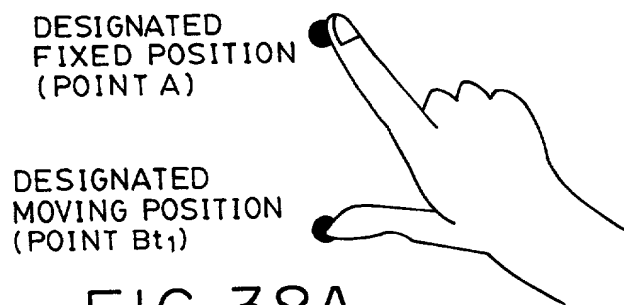


FIG. 38A

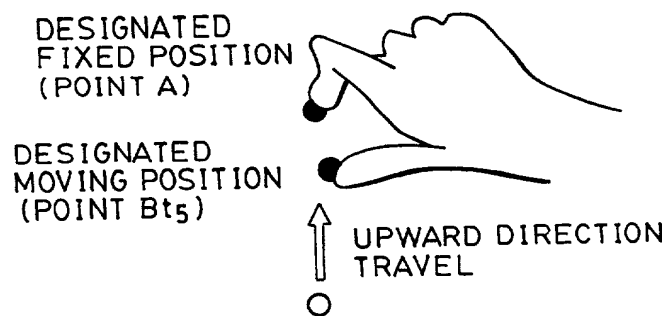


FIG. 38B

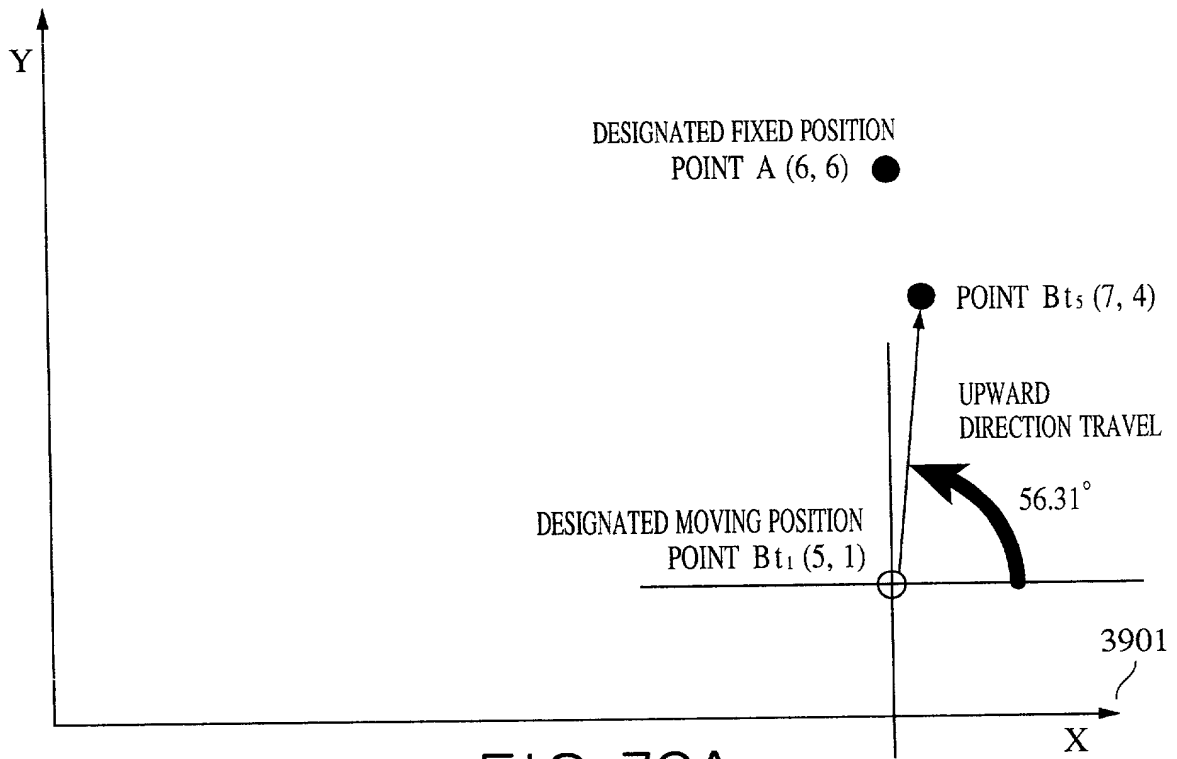


FIG. 39A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	6	6
t <sub>2</sub>	6	6
t <sub>3</sub>	6	6
t <sub>4</sub>	6	6
t <sub>5</sub>	6	6

FIG. 39B

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>	5.0	1.0
t <sub>2</sub>	5.6	1.8
t <sub>3</sub>	6.0	2.3
t <sub>4</sub>	6.6	3.5
t <sub>5</sub>	7.0	4.0

FIG. 39C

DESIGNATED POSITION TRAVEL DATA

	TRAVEL OF POINT A	TRAVEL OF POINT B	DIRECTION OF TRAVEL
t <sub>1</sub>	0.000	0.000	0.00
t <sub>2</sub>	0.000	1.000	53.13
t <sub>3</sub>	0.000	1.640	52.43
t <sub>4</sub>	0.000	2.968	57.38
t <sub>5</sub>	0.000	3.606	56.31

FIG. 39D

DOWNWARD TRAVEL

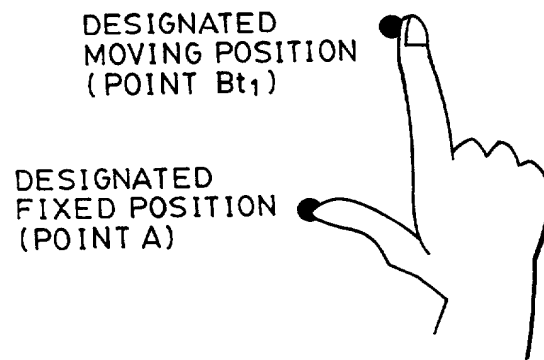


FIG. 40A

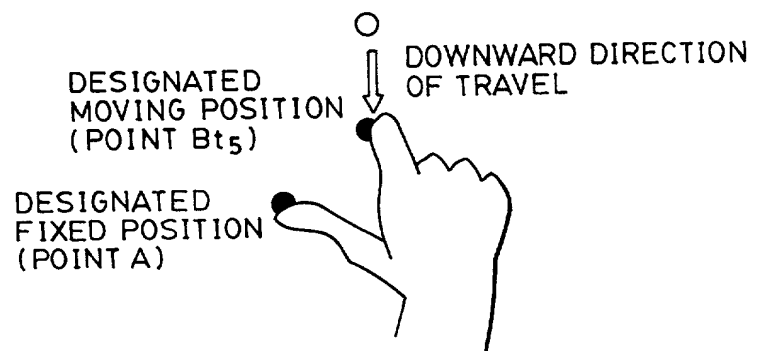


FIG. 40B



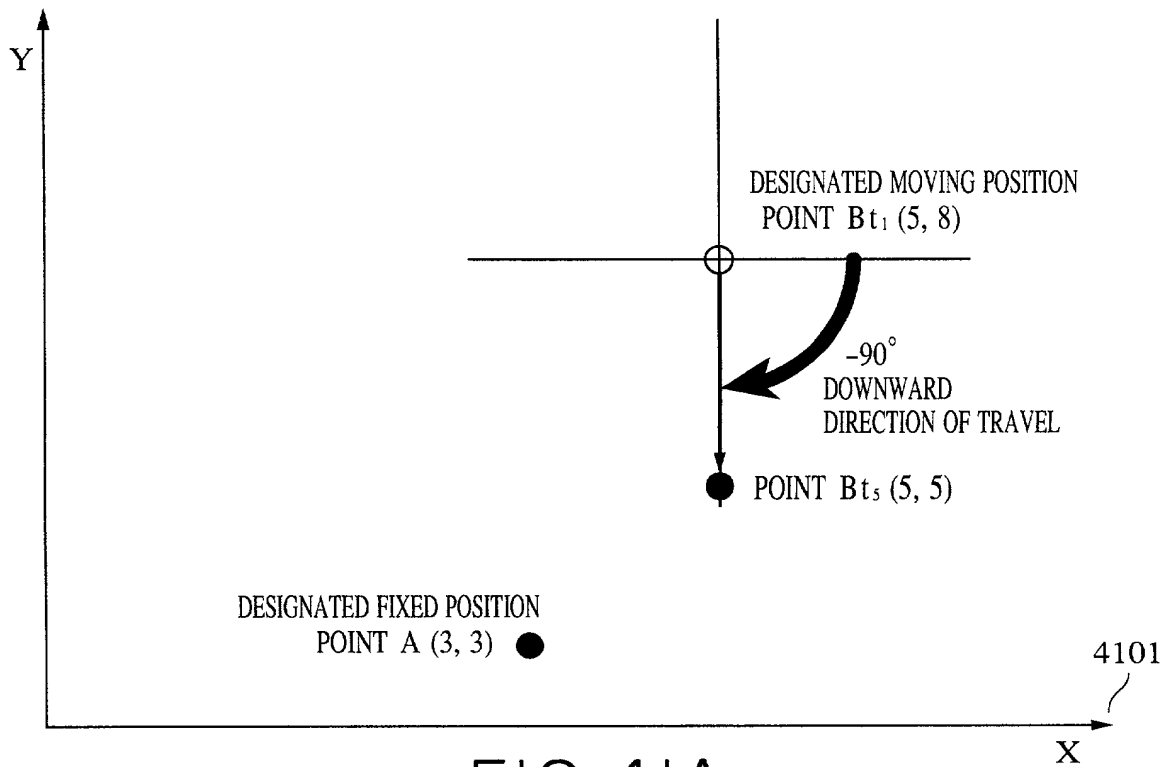


FIG. 41A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	A <sub>X</sub>	A <sub>Y</sub>
t <sub>1</sub>	3	3
t <sub>2</sub>	3	3
t <sub>3</sub>	3	3
t <sub>4</sub>	3	3
t <sub>5</sub>	3	3

FIG. 41B

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT B

	B <sub>X</sub>	B <sub>Y</sub>
t <sub>1</sub>	5.0	8.0
t <sub>2</sub>	5.0	7.2
t <sub>3</sub>	5.0	6.5
t <sub>4</sub>	5.0	5.6
t <sub>5</sub>	5.0	5.0

4102

FIG. 41C

DESIGNATED POSITION TRAVEL DATA

	TRAVEL OF POINT A	TRAVEL OF POINT B	DIRECTION OF TRAVEL
t <sub>1</sub>	0.000	0.000	0.00
t <sub>2</sub>	0.000	0.800	-90.00
t <sub>3</sub>	0.000	1.500	-90.00
t <sub>4</sub>	0.000	2.400	-90.00
t <sub>5</sub>	0.000	3.000	-90.00

4103

FIG. 41D

RIGHTWARD TRAVEL

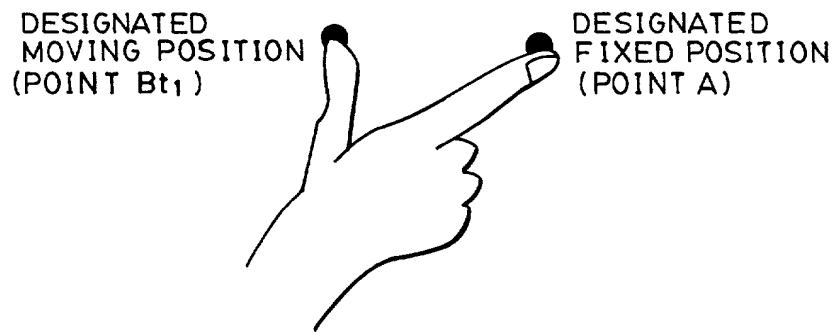


FIG. 42A

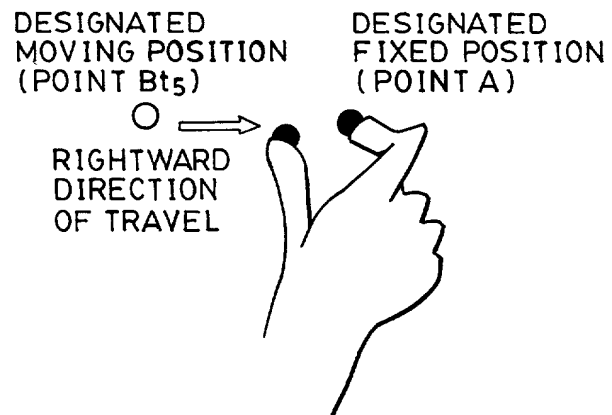


FIG. 42B

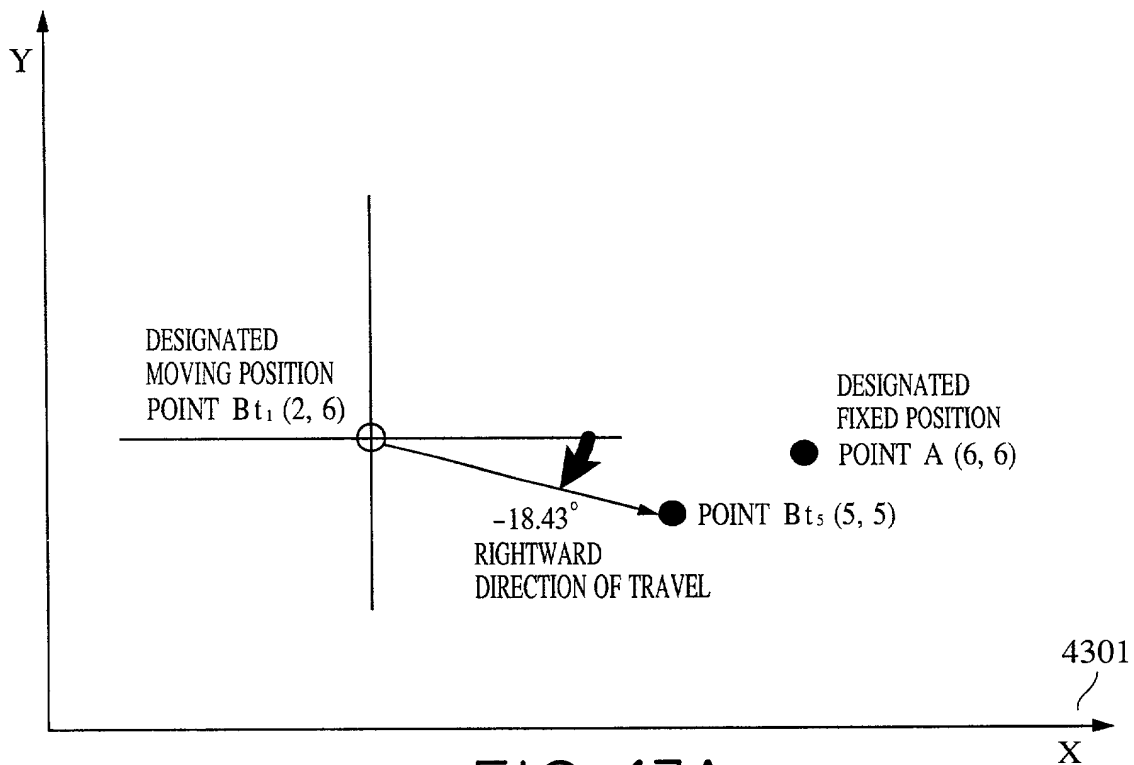


FIG. 43A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	6	6
t <sub>2</sub>	6	6
t <sub>3</sub>	6	6
t <sub>4</sub>	6	6
t <sub>5</sub>	6	6

FIG. 43B

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>	2.0	6.0
t <sub>2</sub>	2.8	5.7
t <sub>3</sub>	3.5	5.6
t <sub>4</sub>	4.2	5.2
t <sub>5</sub>	5.0	5.0

FIG. 43C

DESIGNATED POSITION TRAVEL DATA

	TRAVEL OF POINT A	TRAVEL OF POINT B	DIRECTION OF TRAVEL
t <sub>1</sub>	0.000	0.000	0.00
t <sub>2</sub>	0.000	4.892	-40.86
t <sub>3</sub>	0.000	4.383	-34.78
t <sub>4</sub>	0.000	3.672	-29.36
t <sub>5</sub>	0.000	3.162	-18.43

FIG. 43D

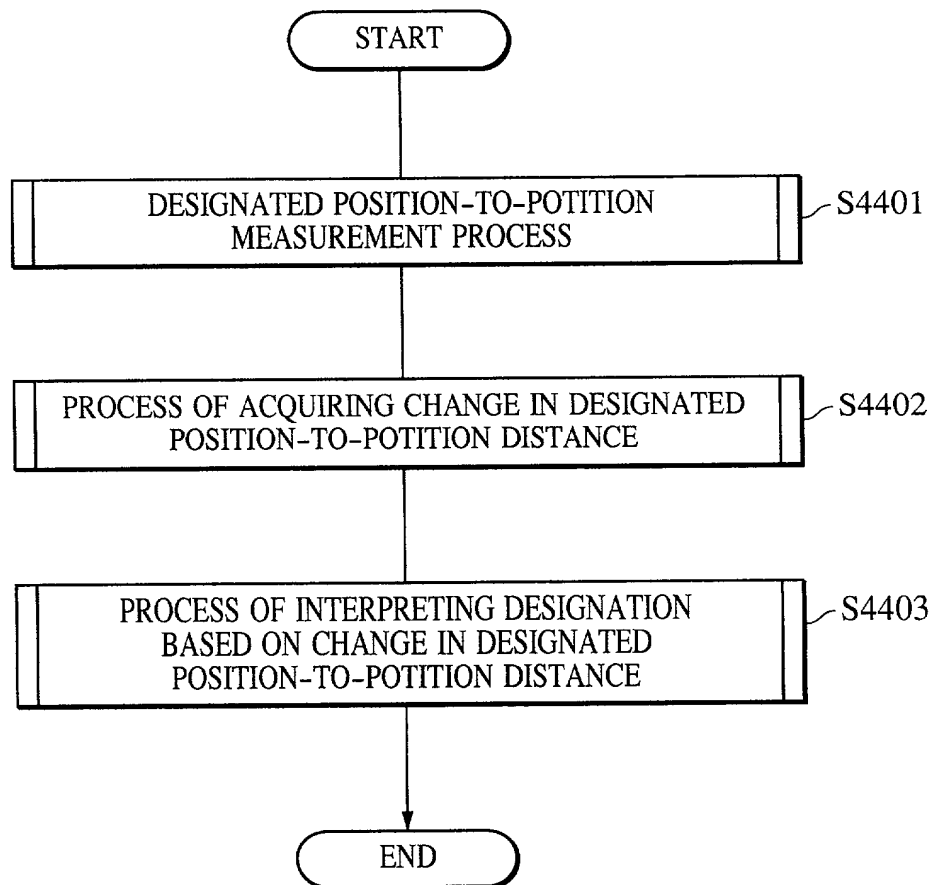


FIG. 44

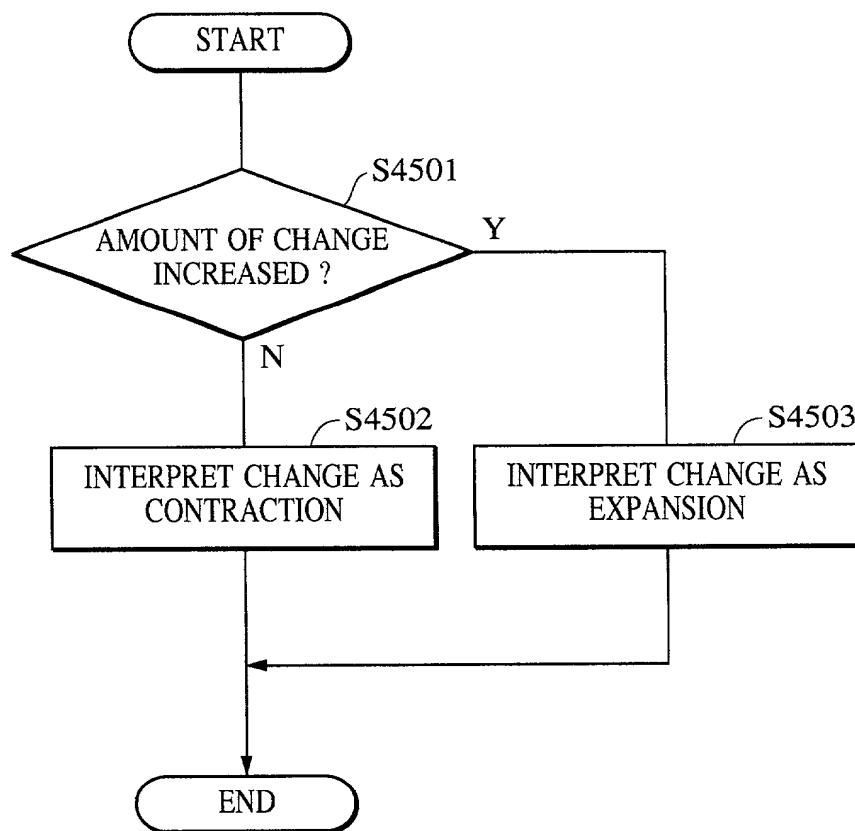


FIG. 45

CONTRACTION OPERATION

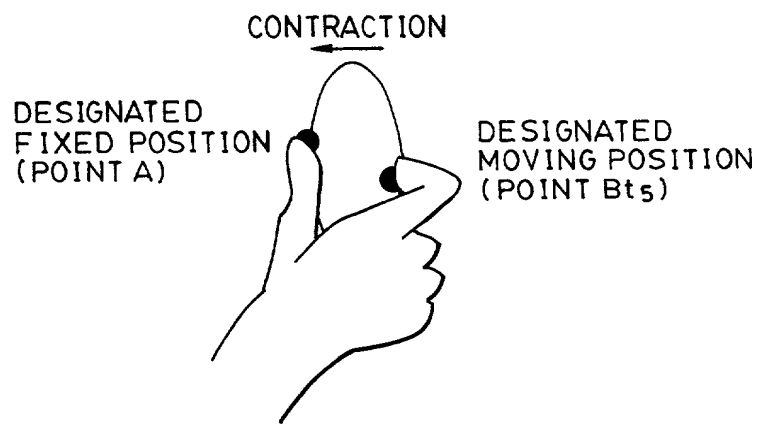
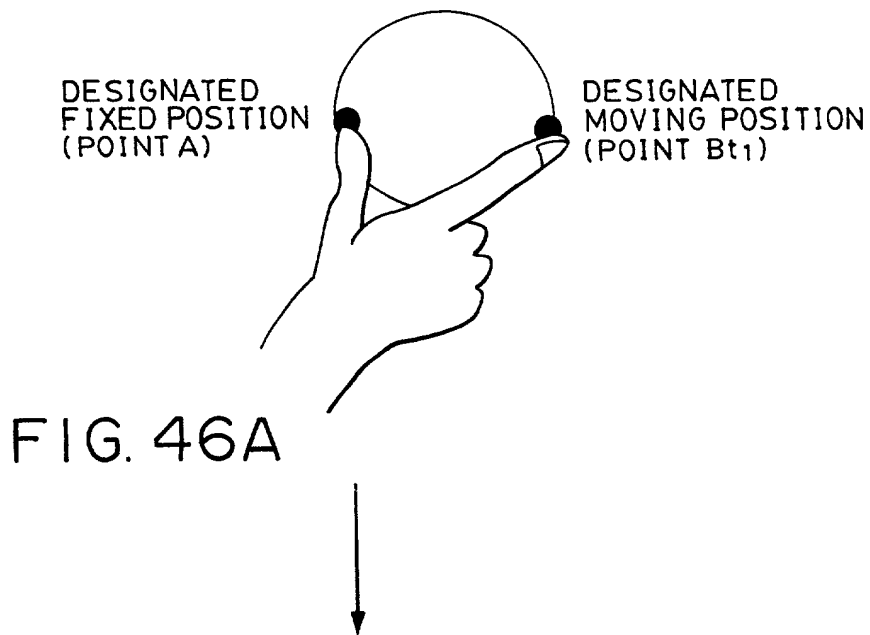


FIG. 46B

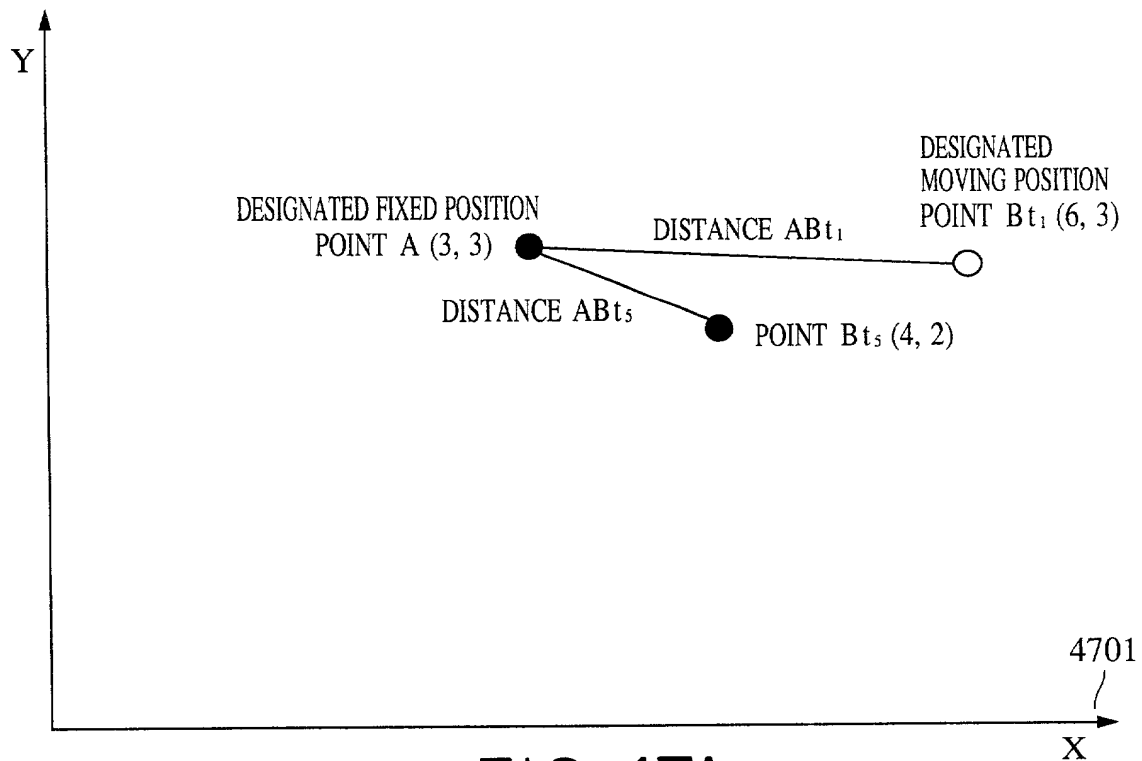


FIG. 47A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	A <sub>X</sub>	A <sub>Y</sub>
t <sub>1</sub>	3	3
t <sub>2</sub>	3	3
t <sub>3</sub>	3	3
t <sub>4</sub>	3	3
t <sub>5</sub>	3	3

FIG. 47B

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT B

	B <sub>X</sub>	B <sub>Y</sub>
t <sub>1</sub>	6.0	3.0
t <sub>2</sub>	5.3	2.3
t <sub>3</sub>	4.7	1.7
t <sub>4</sub>	4.3	1.2
t <sub>5</sub>	4.0	2.0

4702

FIG. 47C

DATA OF CHANGE IN DESIGNATED POSITION-TO-POSITION DISTANCE 4703

	DISTANCE BETWEEN A AND B	MAGNIFICATION (DISTANCE t <sub>n</sub> / DISTANCE t <sub>1</sub> )	DISTANCE t <sub>n</sub> / DISTANCE t <sub>1</sub>
t <sub>1</sub>	3.000	100%	0.000
t <sub>2</sub>	2.436	81%	-0.564
t <sub>3</sub>	2.114	70%	-0.886
t <sub>4</sub>	2.240	75%	-0.760
t <sub>5</sub>	1.414	47%	-1.586

FIG. 47D

EXPANSION OPERATION

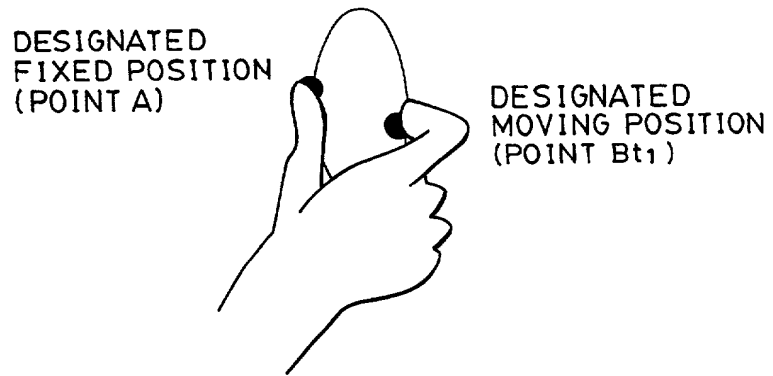


FIG. 48A



EXPANDED

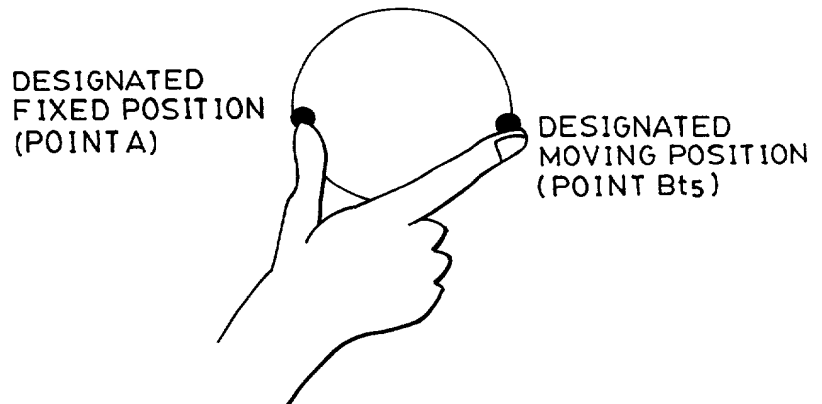


FIG. 48B



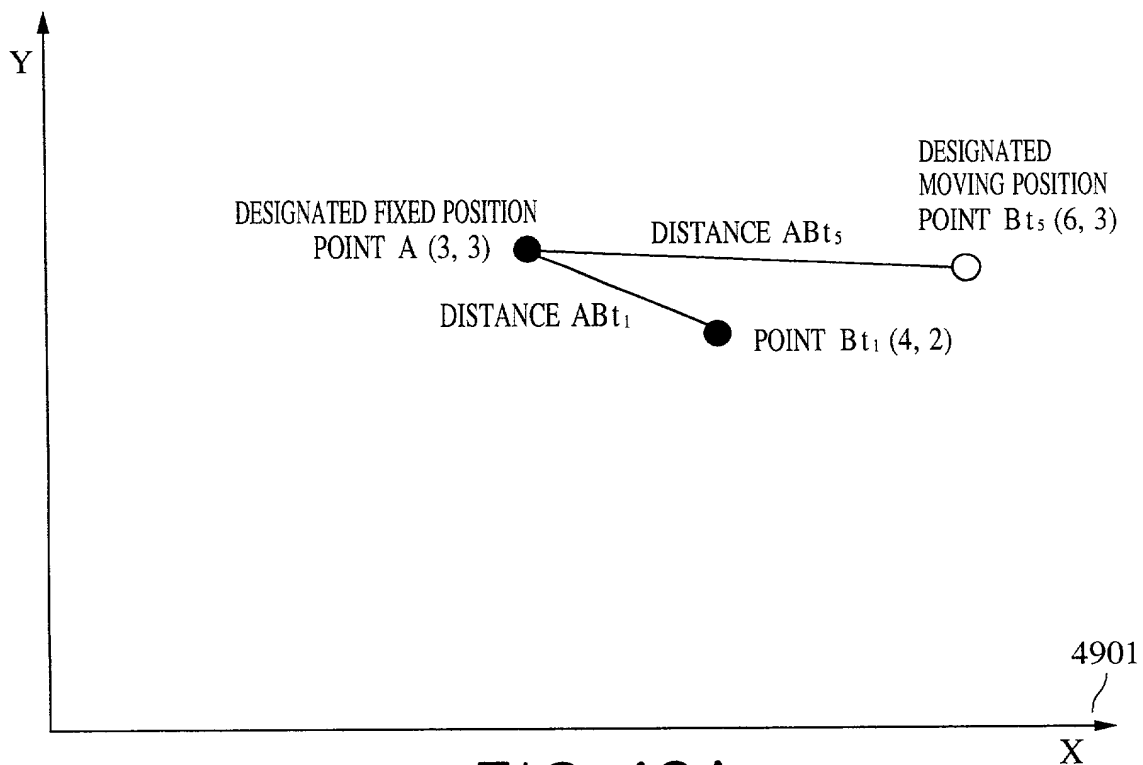


FIG. 49A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	3	3
t <sub>2</sub>	3	3
t <sub>3</sub>	3	3
t <sub>4</sub>	3	3
t <sub>5</sub>	3	3

FIG. 49B

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>	4.0	2.0
t <sub>2</sub>	4.5	2.2
t <sub>3</sub>	5.2	2.5
t <sub>4</sub>	5.8	2.8
t <sub>5</sub>	6.0	3.0

FIG. 49C

DATA OF CHANGE IN DESIGNATED POSITION-TO-POSITION DISTANCE

	DISTANCE BETWEEN A AND B	MAGNIFICATION (DISTANCE t <sub>n</sub> / DISTANCE t <sub>1</sub> )
t <sub>1</sub>	1.414	100%
t <sub>2</sub>	1.700	120%
t <sub>3</sub>	2.256	160%
t <sub>4</sub>	2.807	198%
t <sub>5</sub>	3.000	212%

FIG. 49D

CONTRACTION OPERATION

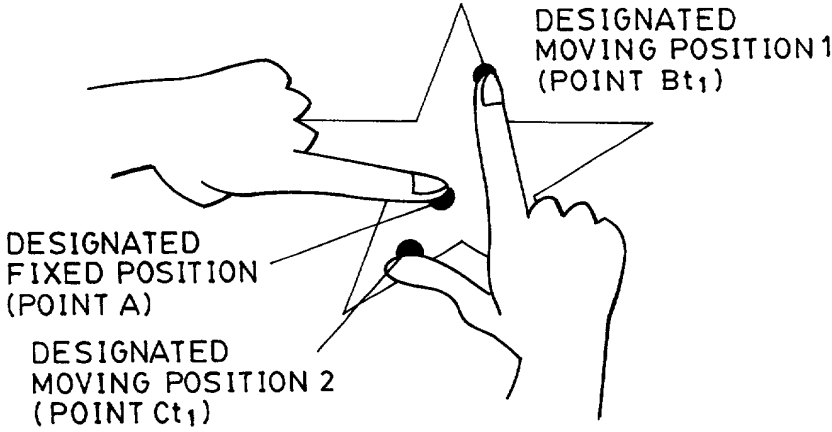


FIG. 50A

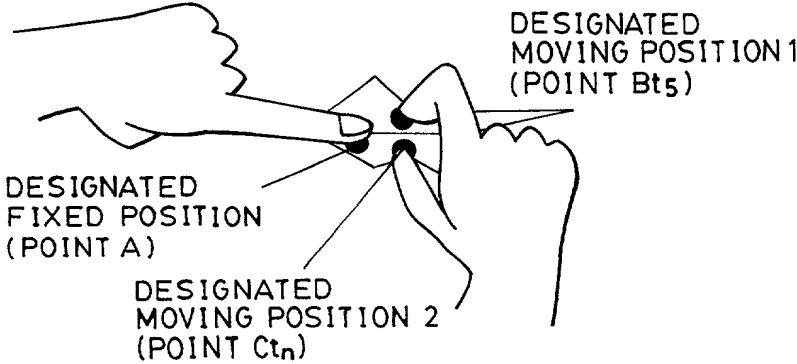


FIG. 50B

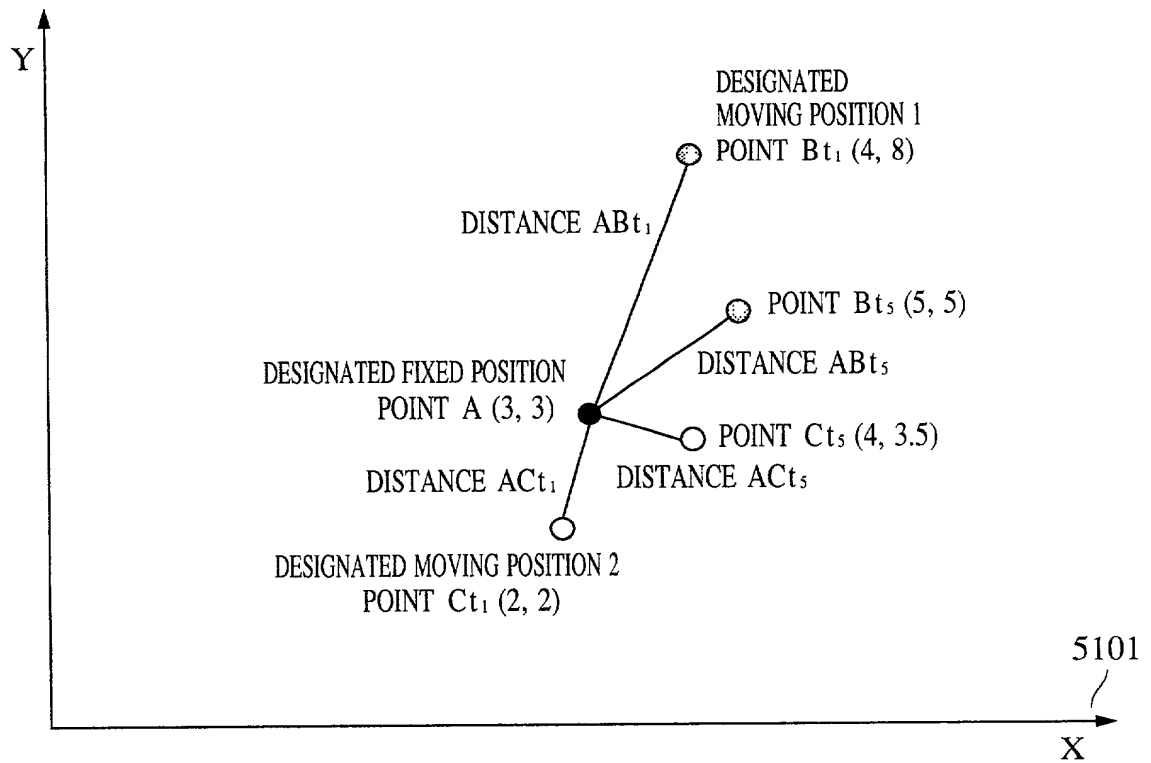


FIG. 51A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	3	3
t <sub>2</sub>	3	3
t <sub>3</sub>	3	3
t <sub>4</sub>	3	3
t <sub>5</sub>	3	3

DESIGNATED MOVING POSITION 1  
POSITION DATA OF POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>	4.0	8.0
t <sub>2</sub>	4.2	7.2
t <sub>3</sub>	4.4	6.3
t <sub>4</sub>	4.7	5.8
t <sub>5</sub>	5.0	5.0

DESIGNATED MOVING POSITION 2  
POSITION DATA OF POINT C

	C <sub>x</sub>	C <sub>y</sub>
t <sub>1</sub>	2.0	2.0
t <sub>2</sub>	2.8	2.3
t <sub>3</sub>	3.4	2.8
t <sub>4</sub>	3.8	3.3
t <sub>5</sub>	4.0	3.5

5102

FIG. 51B

FIG. 51C

FIG. 51D

DATA 1 OF CHANGE IN DESIGNATED  
POSITION-TO-POSITION DISTANCE

	DISTANCE BETWEEN A AND B	MAGNIFICATION (DISTANCE t <sub>n</sub> / DISTANCE t <sub>1</sub> )
t <sub>1</sub>	5.099	100%
t <sub>2</sub>	4.368	86%
t <sub>3</sub>	3.585	70%
t <sub>4</sub>	3.276	64%
t <sub>5</sub>	2.828	55%

FIG. 51E

DATA 2 OF CHANGE IN DESIGNATED  
POSITION-TO-POSITION DISTANCE

	DISTANCE BETWEEN A AND B	MAGNIFICATION (DISTANCE t <sub>n</sub> / DISTANCE t <sub>1</sub> )
t <sub>1</sub>	1.414	100%
t <sub>2</sub>	0.728	51%
t <sub>3</sub>	0.447	32%
t <sub>4</sub>	0.854	60%
t <sub>5</sub>	1.118	79%

5103

FIG. 51F

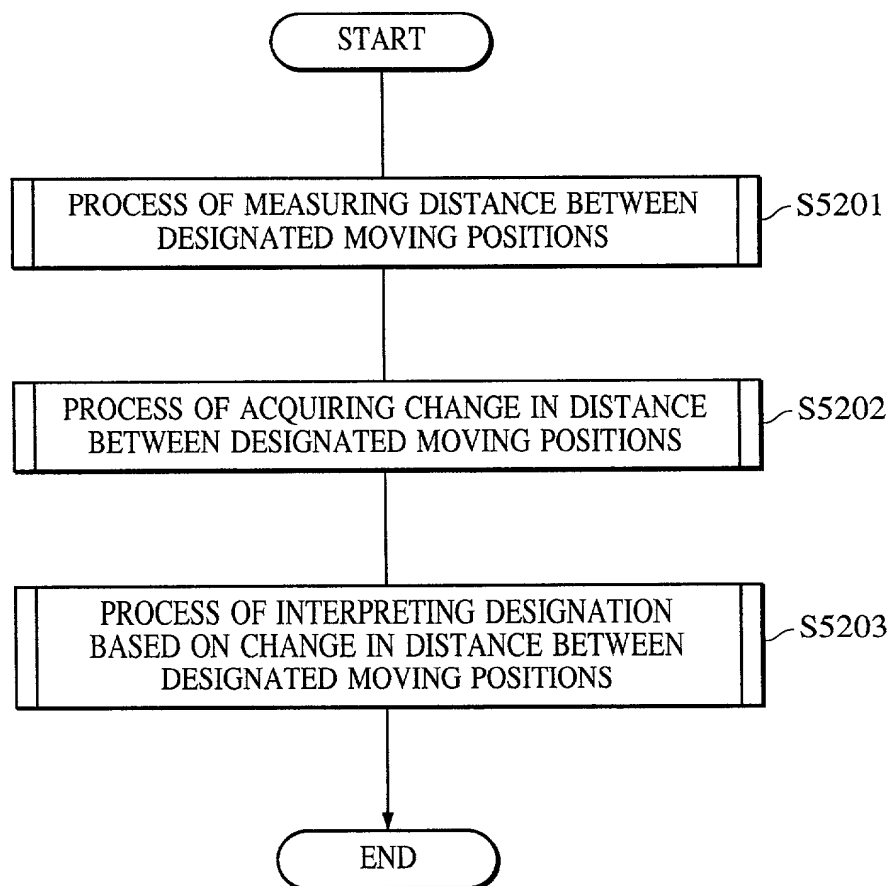


FIG. 52

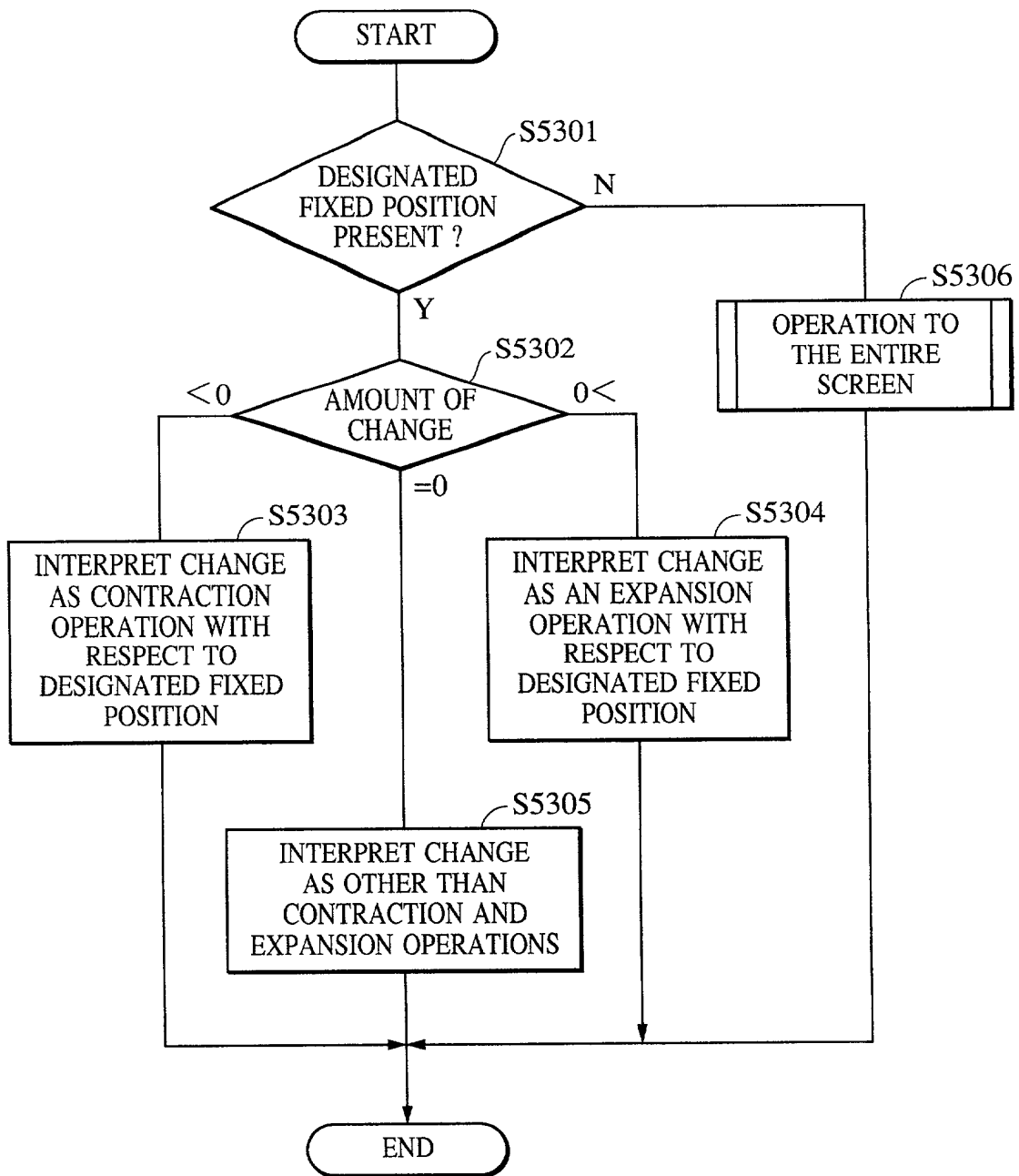


FIG. 53

CONTRACTION OPERATION

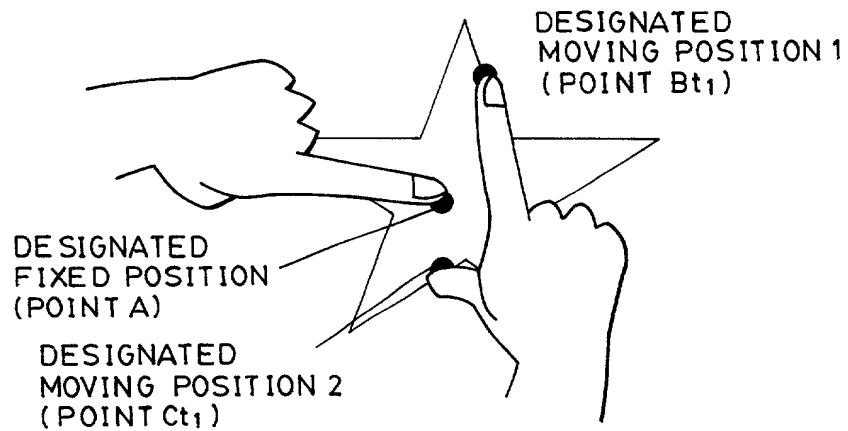


FIG. 54A

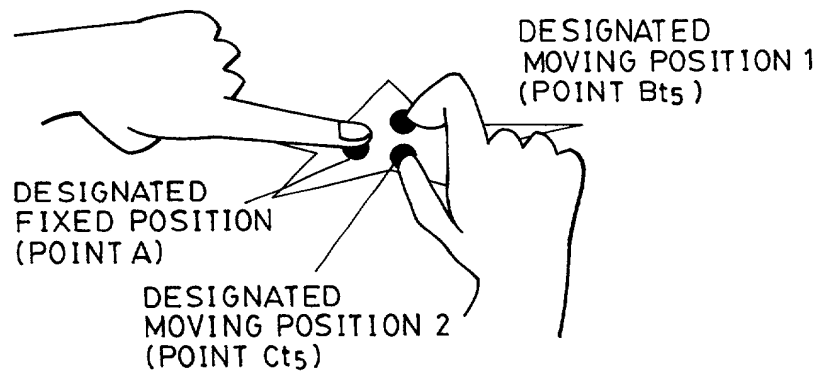


FIG. 54B

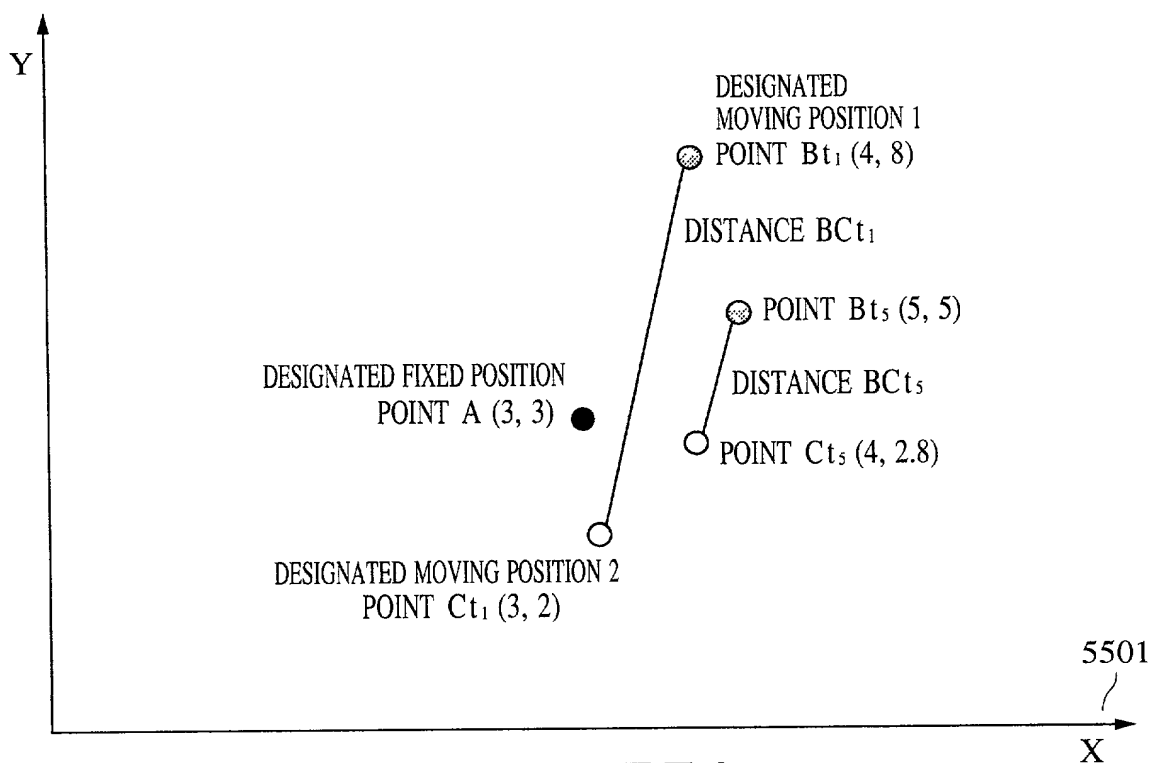


FIG. 55A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	$A_x$	$A_y$
$t_1$	3	3
$t_2$	3	3
$t_3$	3	3
$t_4$	3	3
$t_5$	3	3

FIG. 55B

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT B

	$B_x$	$B_y$
$t_1$	4.0	8.0
$t_2$	4.2	7.2
$t_3$	4.4	6.3
$t_4$	4.7	5.8
$t_5$	5.0	5.0

FIG. 55C

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT C

	$C_x$	$C_y$
$t_1$	3.0	2.0
$t_2$	3.2	2.2
$t_3$	3.4	2.4
$t_4$	3.8	2.6
$t_5$	4.0	2.8

FIG. 55D

DATA OF CHANGE IN DESIGNATED  
POSITION-TO-POSITION DISTANCE

	DISTANCE BETWEEN B AND C	MAGNIFICATION (DISTANCE $t_n$ / DISTANCE $t_1$ )
$t_1$	6.083	100%
$t_2$	5.099	84%
$t_3$	4.026	66%
$t_4$	3.324	55%
$t_5$	2.417	40%

FIG. 55E



CONTRACTION OPERATION

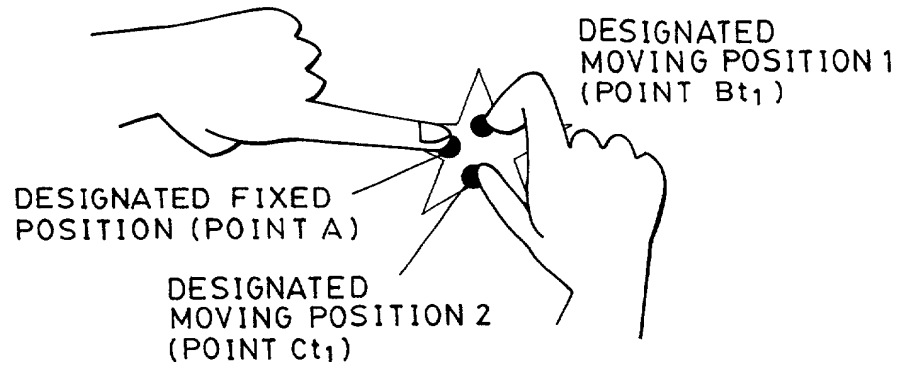


FIG. 56A

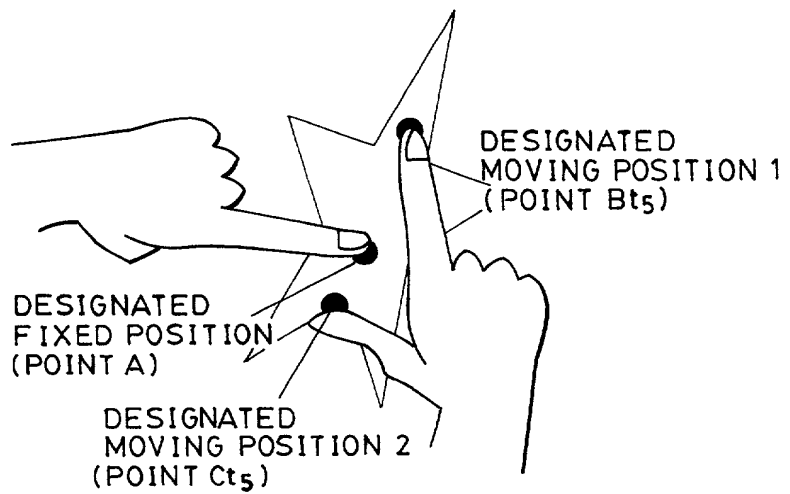


FIG. 56B

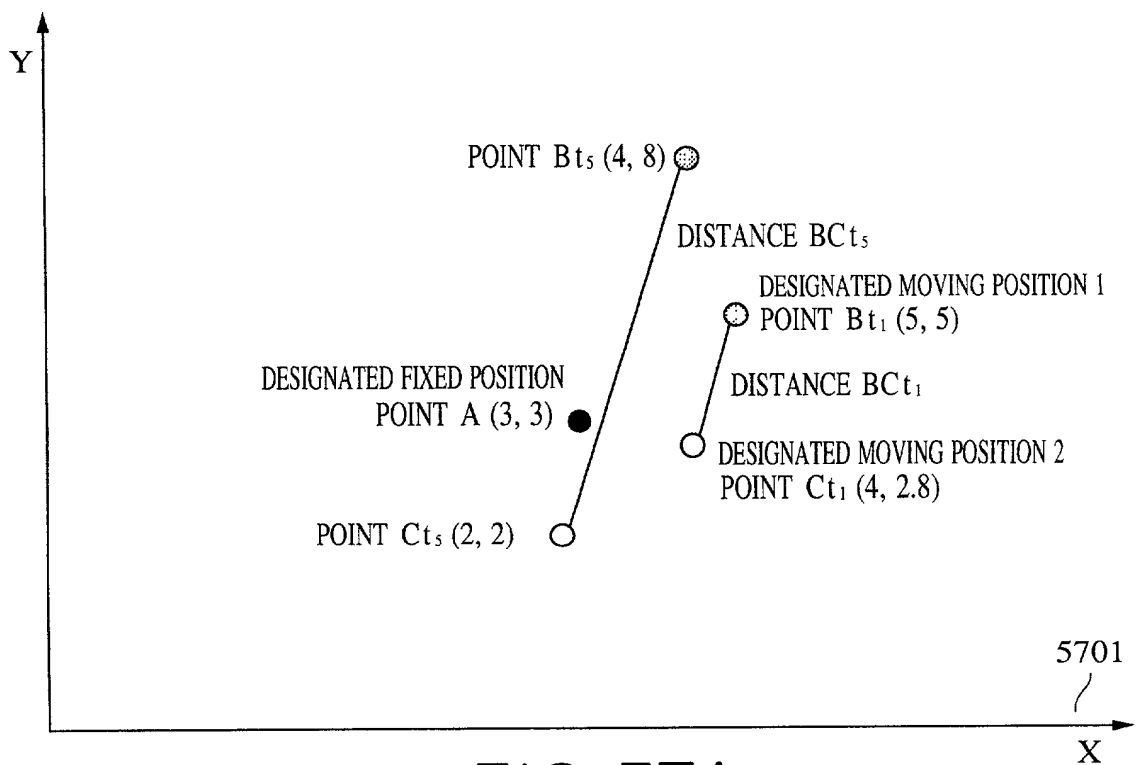


FIG. 57A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	$A_x$	$A_y$
$t_1$	3	3
$t_2$	3	3
$t_3$	3	3
$t_4$	3	3
$t_5$	3	3

FIG. 57B

DESIGNATED MOVING POSITION 1  
POSITION DATA OF POINT B

	$B_x$	$B_y$
$t_1$	5.0	5.0
$t_2$	4.7	5.8
$t_3$	4.4	6.3
$t_4$	4.2	7.2
$t_5$	4.0	8.0

FIG. 57C

DESIGNATED MOVING POSITION 2  
POSITION DATA OF POINT C

	$C_x$	$C_y$
$t_1$	4.0	2.8
$t_2$	3.8	2.6
$t_3$	3.4	2.4
$t_4$	2.8	2.2
$t_5$	2.0	2.0

FIG. 57D

DATA OF CHANGE IN DESIGNATED  
POSITION-TO-POSITION DISTANCE

	DISTANCE BETWEEN B AND C	MAGNIFICATION (DISTANCE $t_n$ / DISTANCE $t_1$ )
$t_1$	2.417	100%
$t_2$	3.324	138%
$t_3$	4.026	167%
$t_4$	5.192	215%
$t_5$	6.325	262%

FIG. 57E

DESIGNATING A PLURALITY OF MOVING POINTS

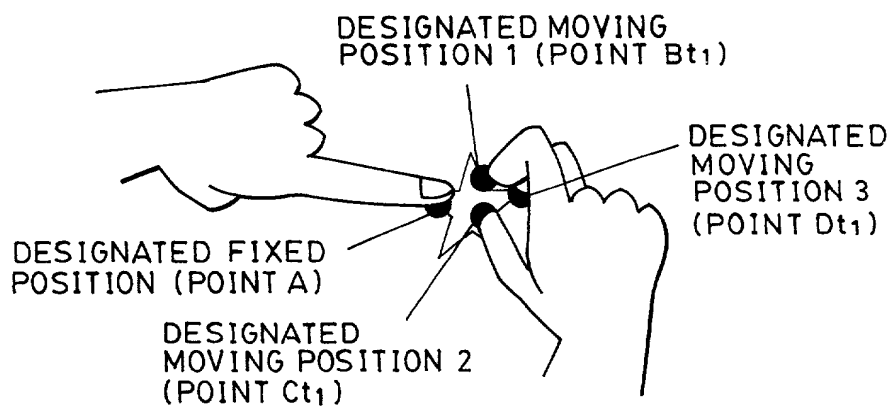


FIG. 58A

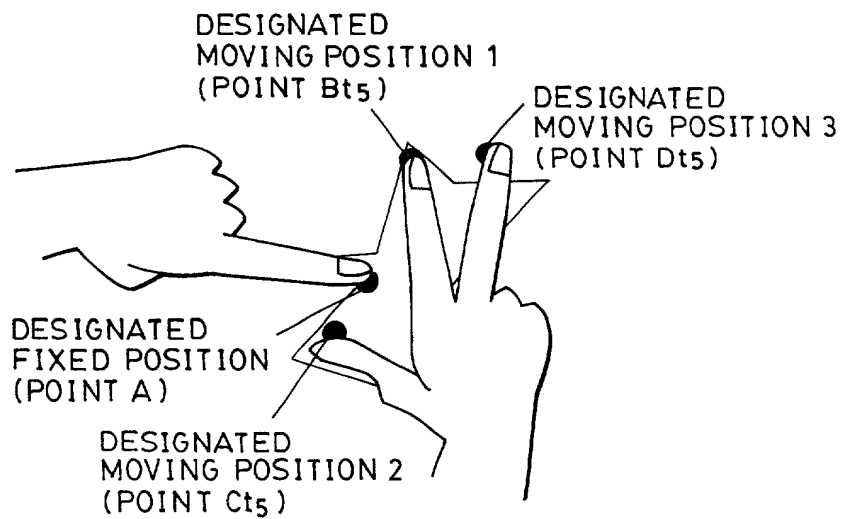


FIG. 58B

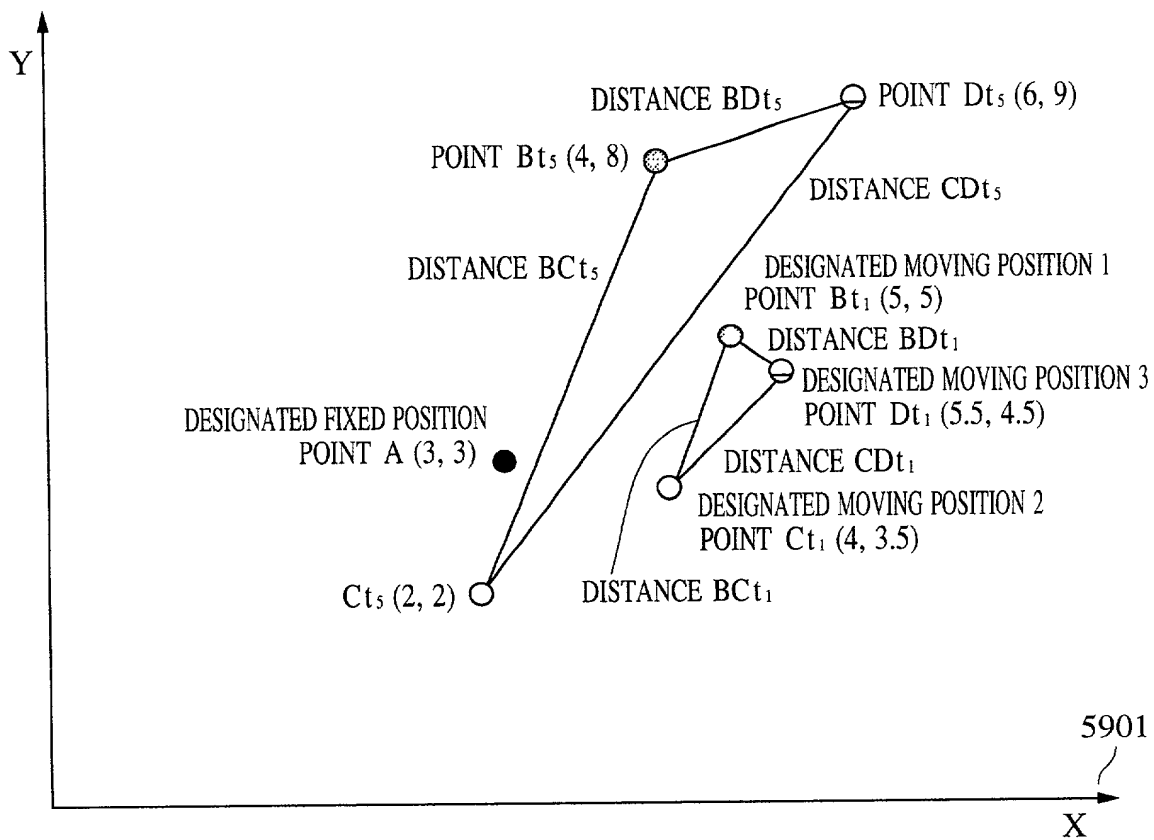


FIG. 59A



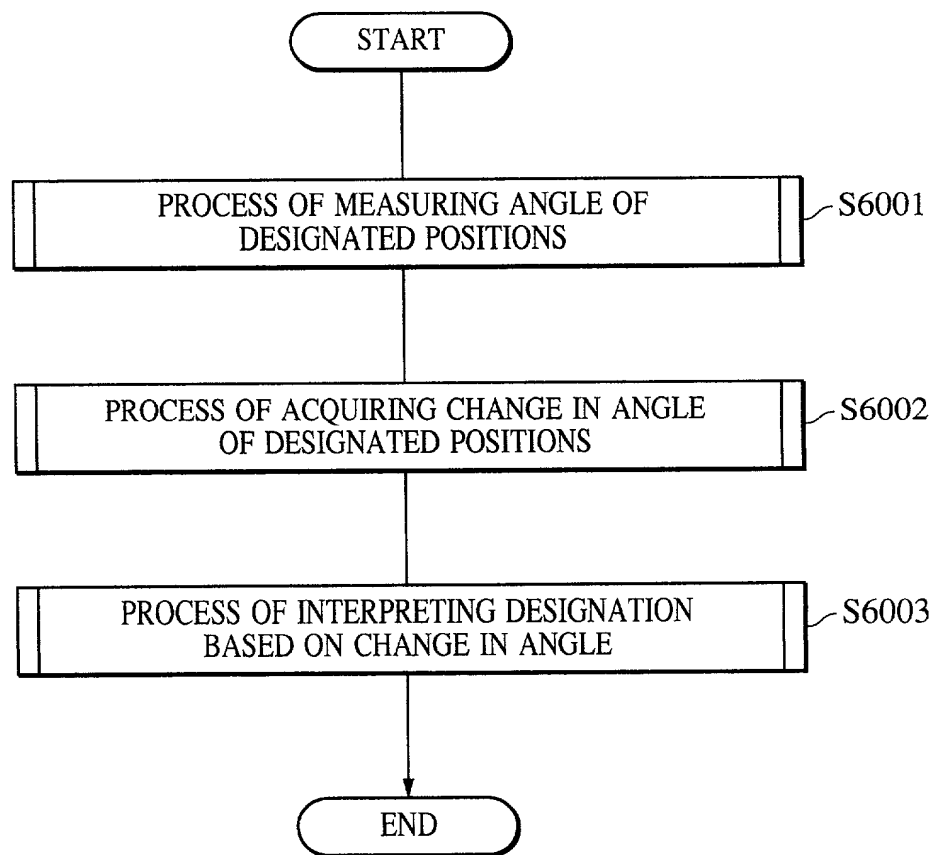


FIG. 60

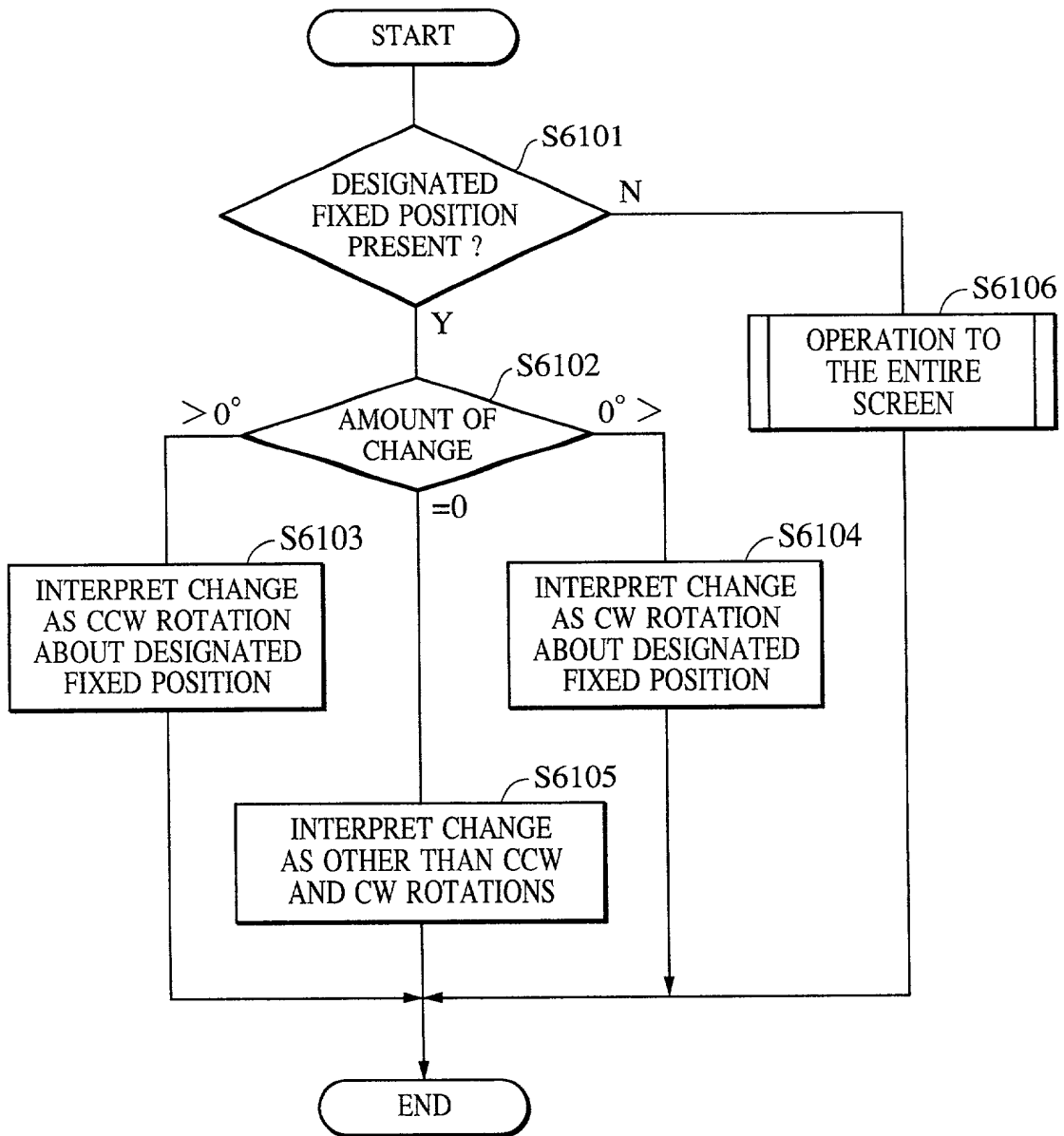


FIG. 61

CW ROTATION OPERATION

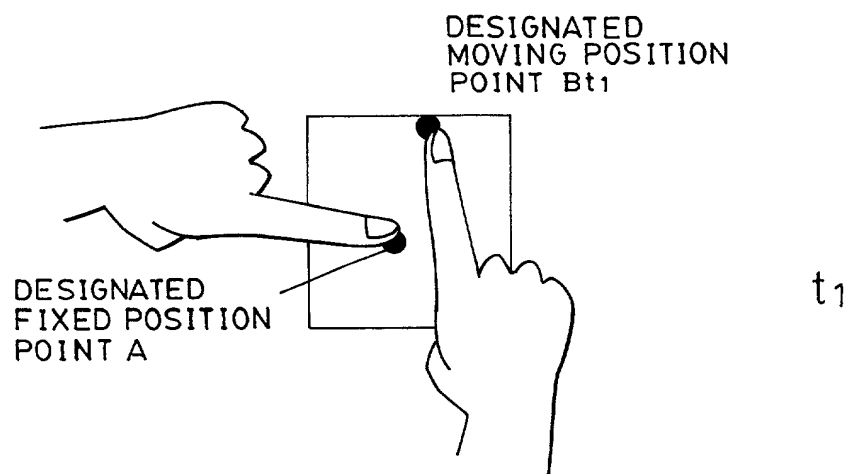


FIG. 62A

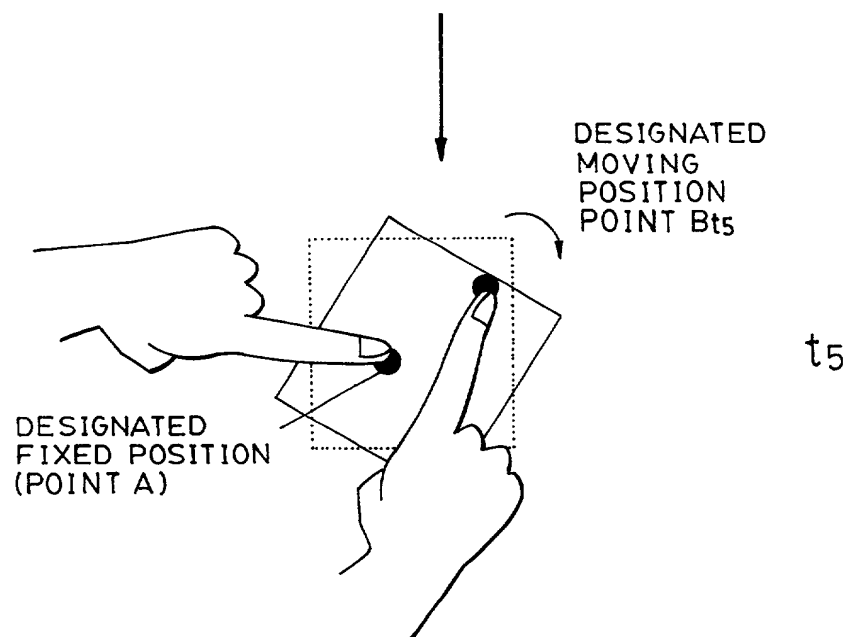
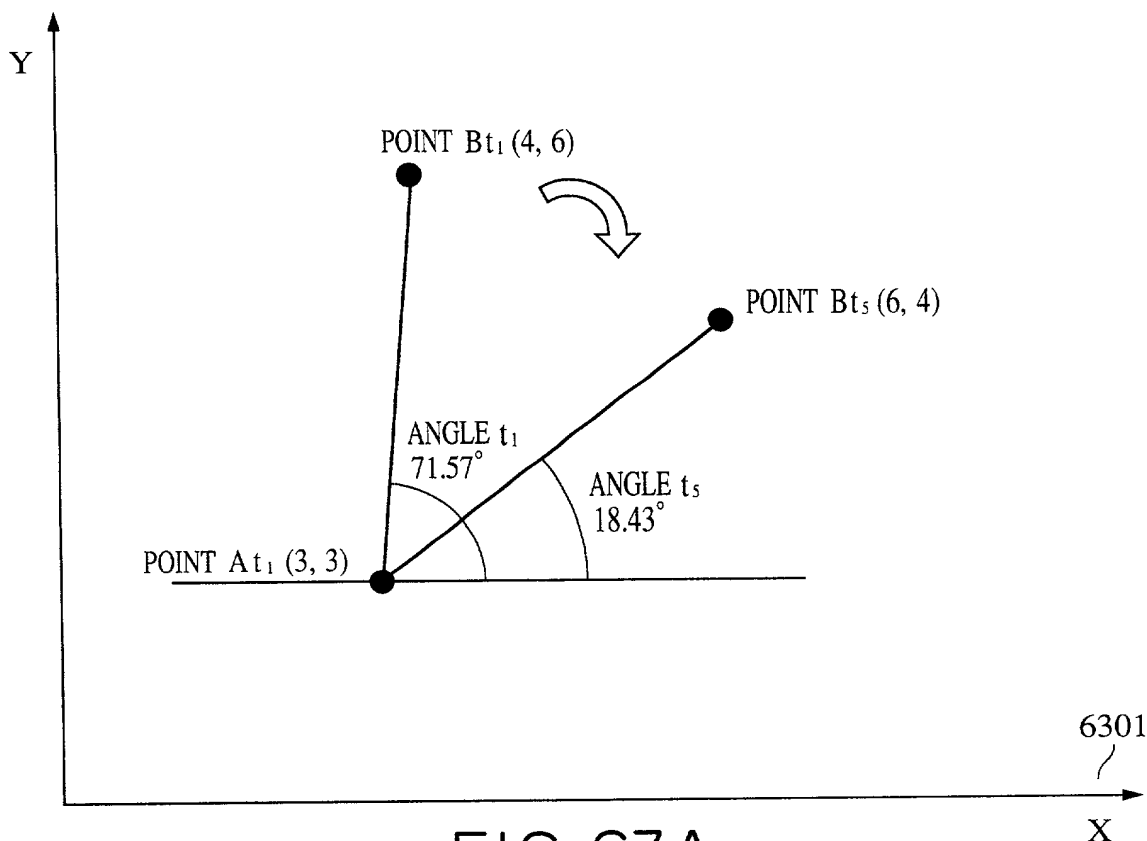


FIG. 62B





DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	A <sub>X</sub>	A <sub>Y</sub>
t <sub>1</sub>	3	3
t <sub>2</sub>	3	3
t <sub>3</sub>	3	3
t <sub>4</sub>	3	3
t <sub>5</sub>	3	3

6302A

FIG. 63B

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT B

	B <sub>X</sub>	B <sub>Y</sub>
t <sub>1</sub>	4.0	6.0
t <sub>2</sub>	4.7	5.7
t <sub>3</sub>	5.2	5.3
t <sub>4</sub>	5.7	4.6
t <sub>5</sub>	6.0	4.0

6302B

FIG. 63C

DATA OF CHANGE IN ANGLE OF DESIGNATED POSITIONS

	ANGLE OF DESIGNATED POSITIONS	AMOUNT OF CHANGE
t <sub>1</sub>	71.57	0.00
t <sub>2</sub>	57.57	-14.00
t <sub>3</sub>	45.91	-25.66
t <sub>4</sub>	30.67	-40.90
t <sub>5</sub>	18.43	-53.13

6303

FIG. 63D

CCW ROTATION OPERATION

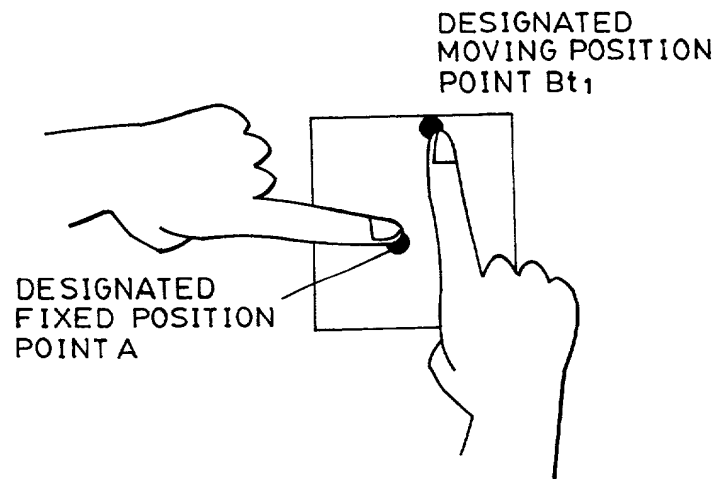


FIG. 64A

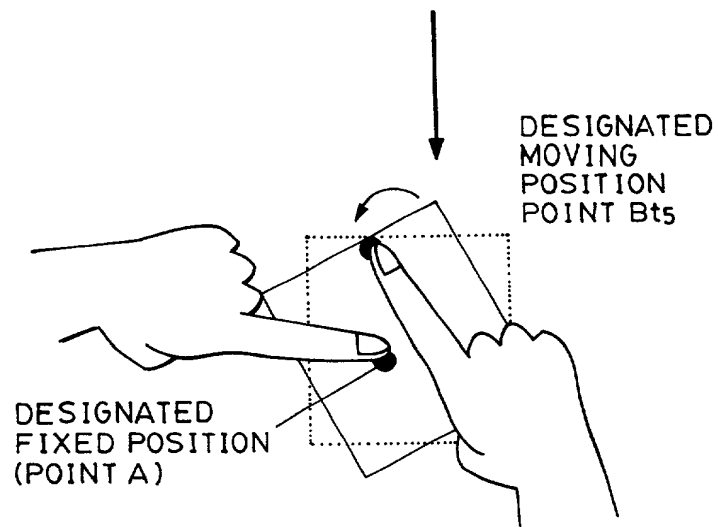
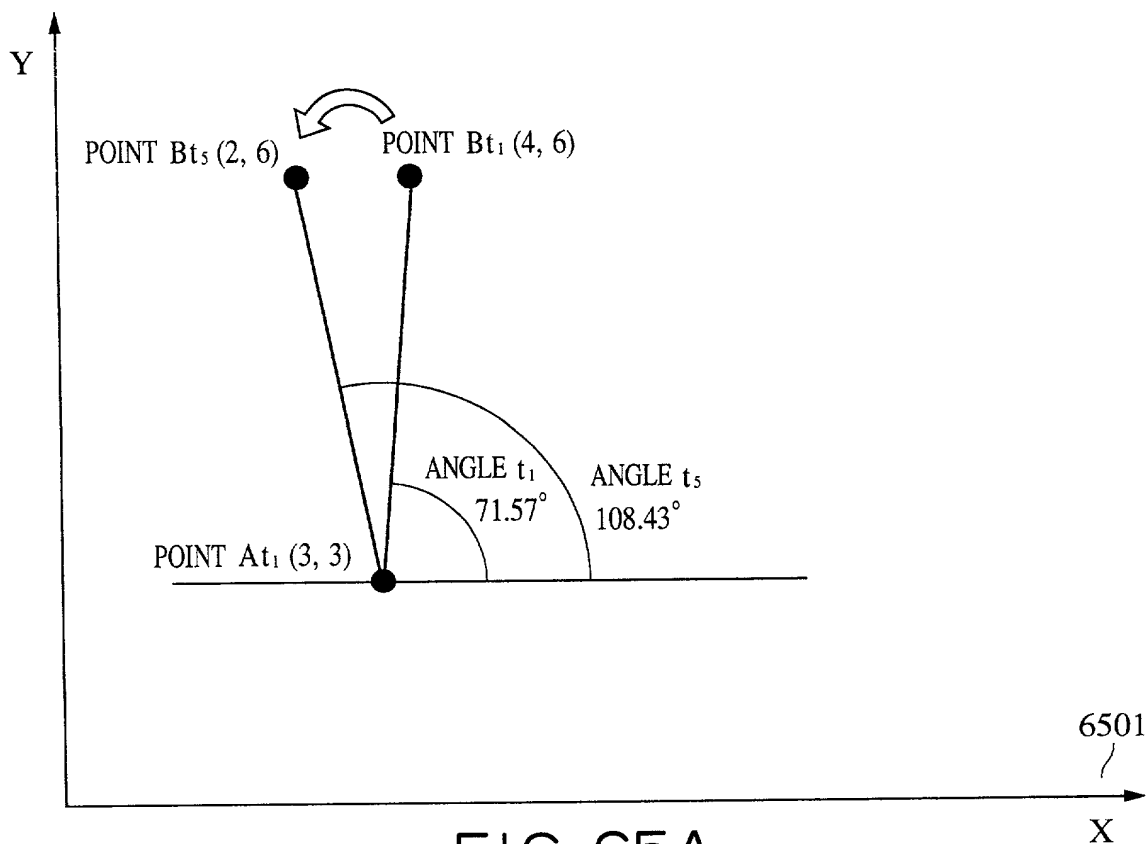


FIG. 64B



DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	3	3
t <sub>2</sub>	3	3
t <sub>3</sub>	3	3
t <sub>4</sub>	3	3
t <sub>5</sub>	3	3

6502A

FIG. 65B

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>	4.0	6.0
t <sub>2</sub>	3.5	6.1
t <sub>3</sub>	3.0	6.2
t <sub>4</sub>	2.5	6.1
t <sub>5</sub>	2.0	6.0

6502B

FIG. 65C

DATA OF CHANGE IN ANGLE OF DESIGNATED POSITIONS

	ANGLE OF DESIGNATED FIXED POSITIONS	AMOUNT OF CHANGE
t <sub>1</sub>	71.57	0.00
t <sub>2</sub>	80.90	9.34
t <sub>3</sub>	90.00	18.43
t <sub>4</sub>	99.10	27.53
t <sub>5</sub>	108.43	36.87

6503

FIG. 65D

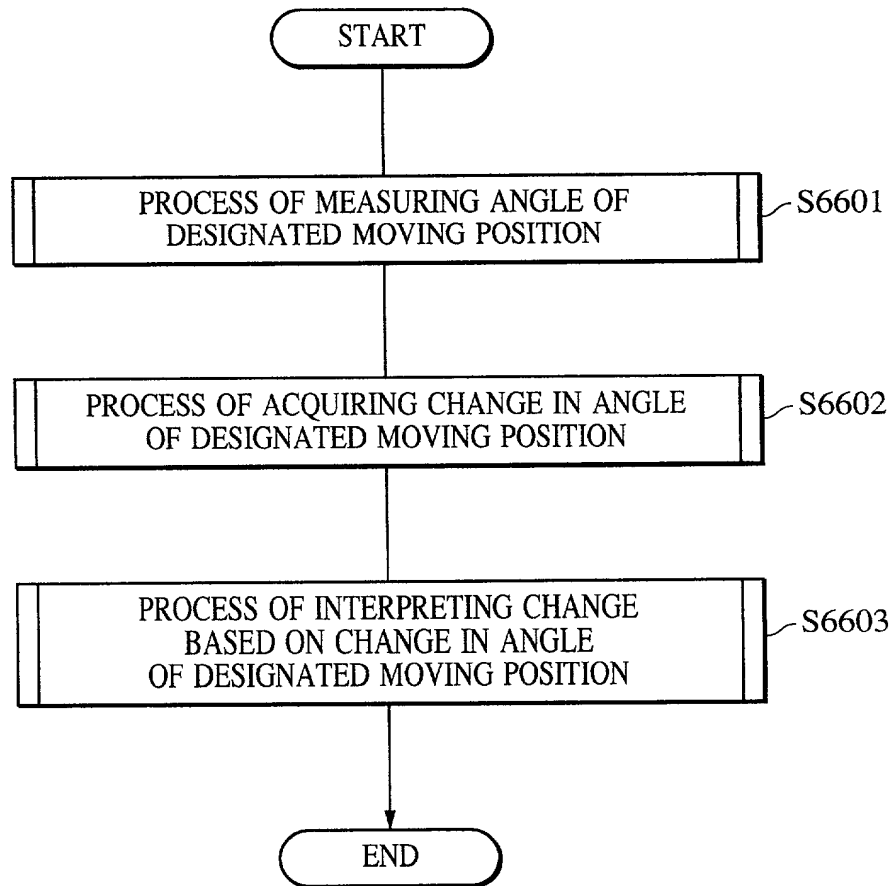


FIG. 66

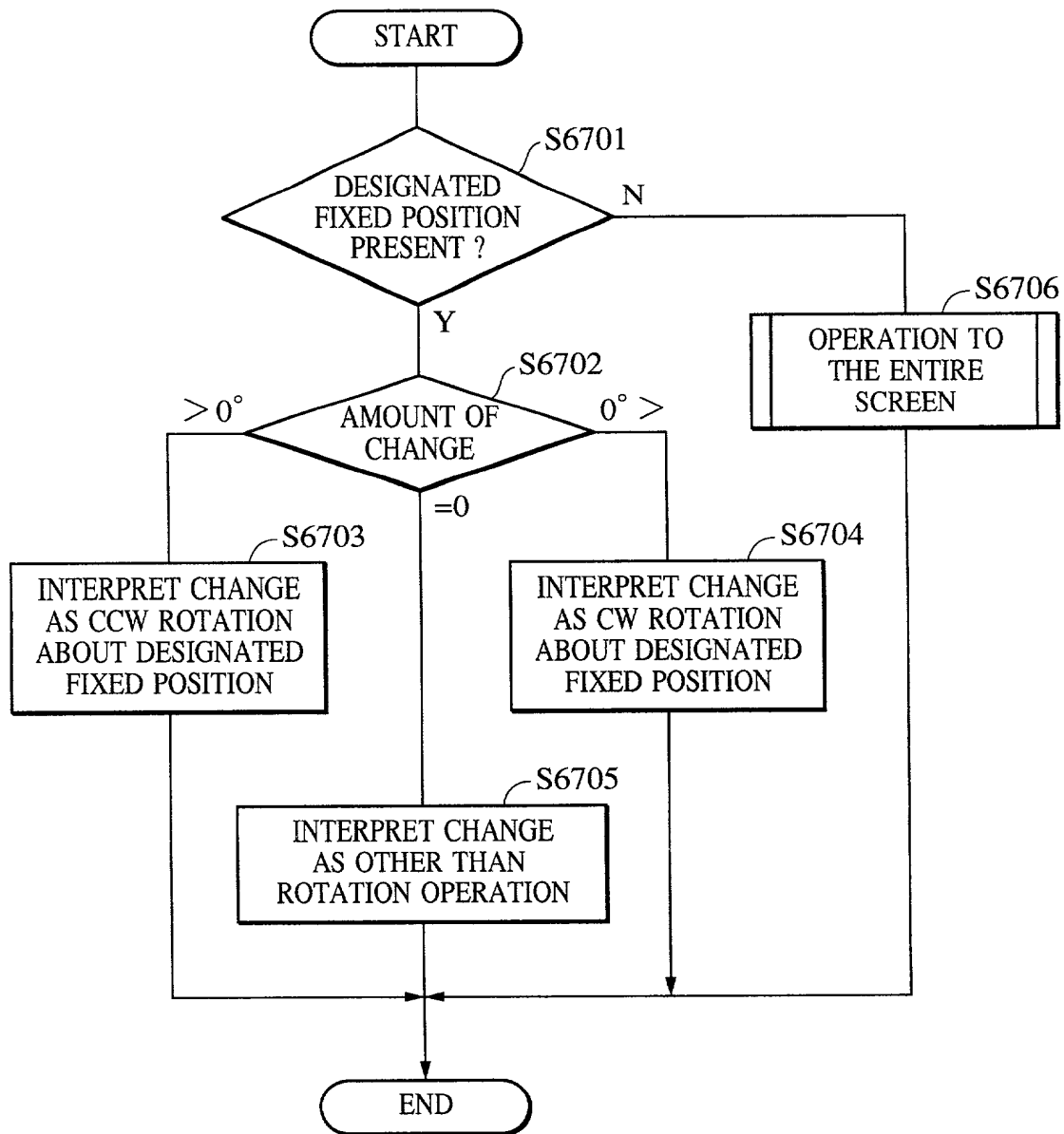


FIG. 67

CW ROTATION OPERATION

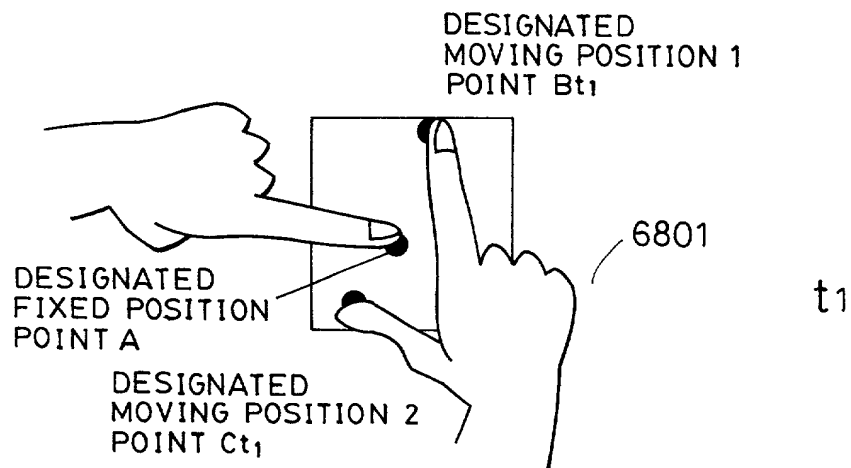


FIG. 68A

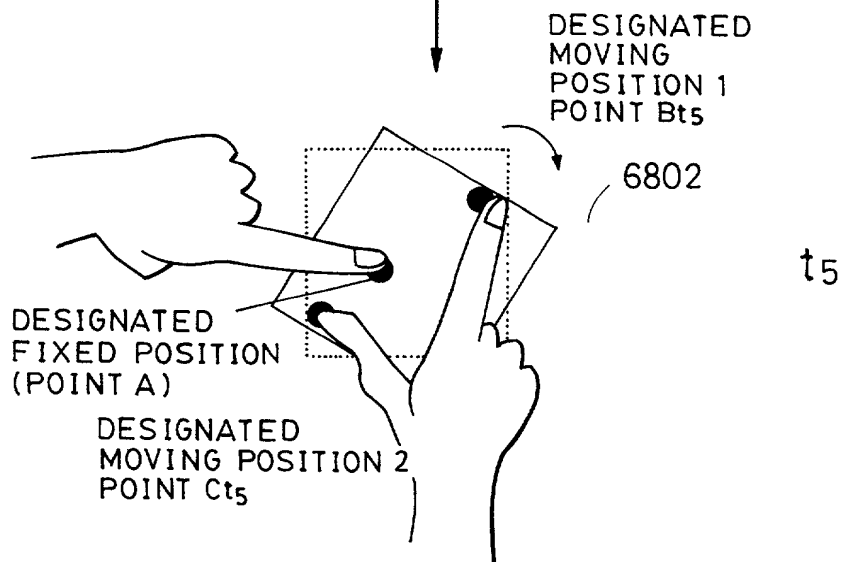


FIG. 68B

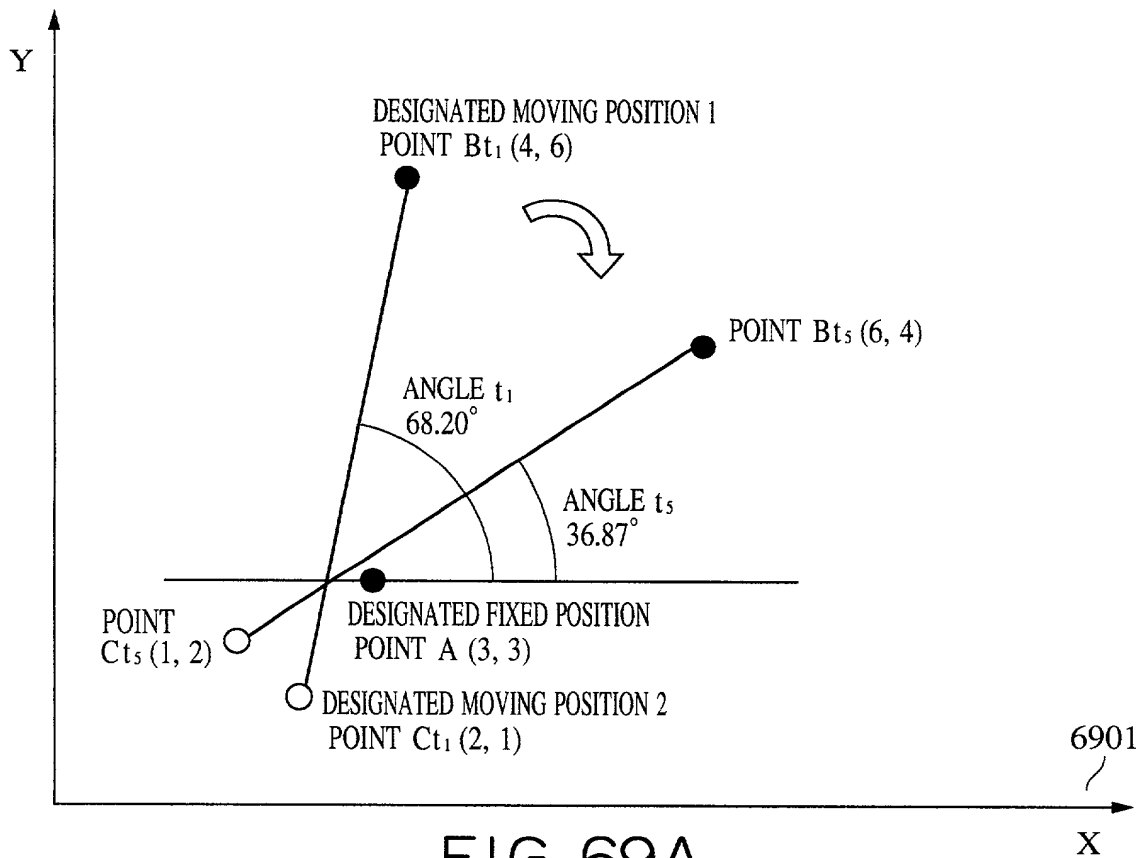


FIG. 69A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	3	3
t <sub>2</sub>	3	3
t <sub>3</sub>	3	3
t <sub>4</sub>	3	3
t <sub>5</sub>	3	3

FIG. 69B

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>	4.0	6.0
t <sub>2</sub>	4.5	5.5
t <sub>3</sub>	5.0	5.0
t <sub>4</sub>	5.5	4.5
t <sub>5</sub>	6.0	4.0

FIG. 69C

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT C

	C <sub>x</sub>	C <sub>y</sub>
t <sub>1</sub>	2	1
t <sub>2</sub>	1.8	1.2
t <sub>3</sub>	1.6	1.5
t <sub>4</sub>	1.4	1.8
t <sub>5</sub>	1	2

FIG. 69D

DATA OF CHANGE IN ANGLE OF DESIGNATED MOVING POSITIONS

	ANGLE OF DESIGNATED MOVING POSITION	AMOUNT OF CHANGE
t <sub>1</sub>	68.20	0.00
t <sub>2</sub>	60.95	-7.25
t <sub>3</sub>	53.13	-15.07
t <sub>4</sub>	45.00	-23.20
t <sub>5</sub>	36.87	-31.33

FIG. 69E

CCW ROTATION OPERATION

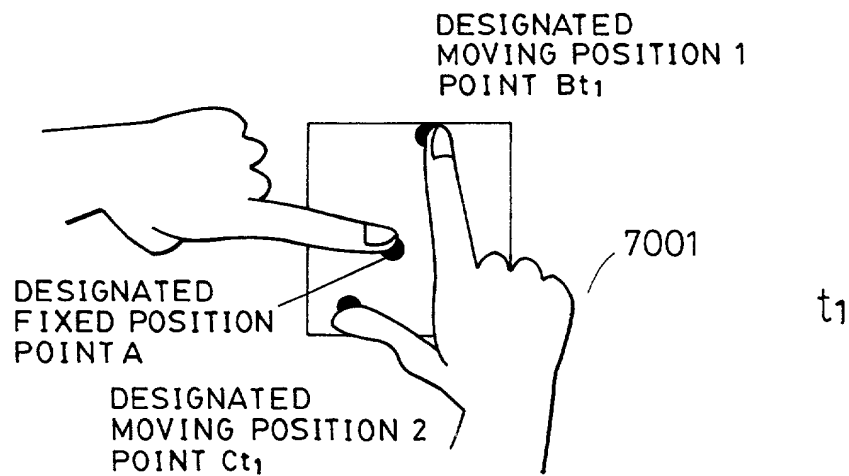


FIG. 70A

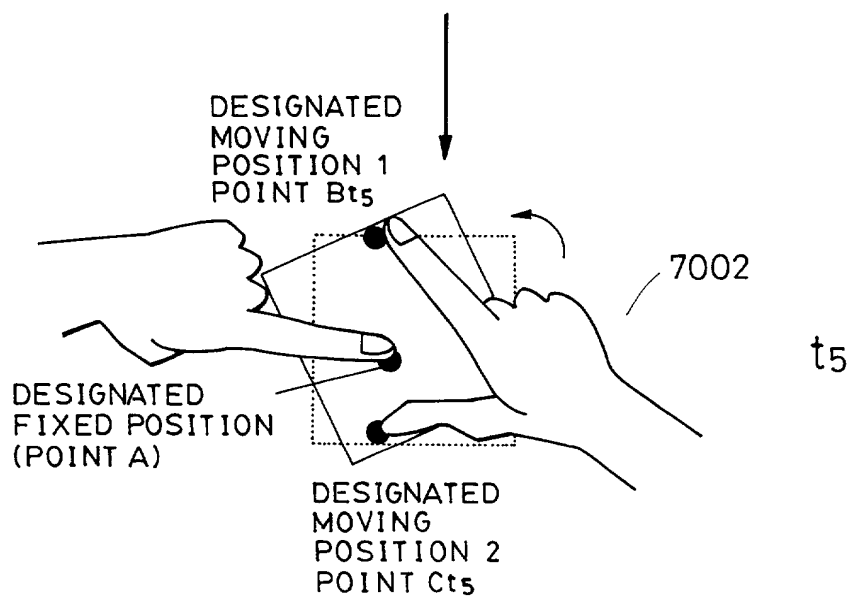


FIG. 70B



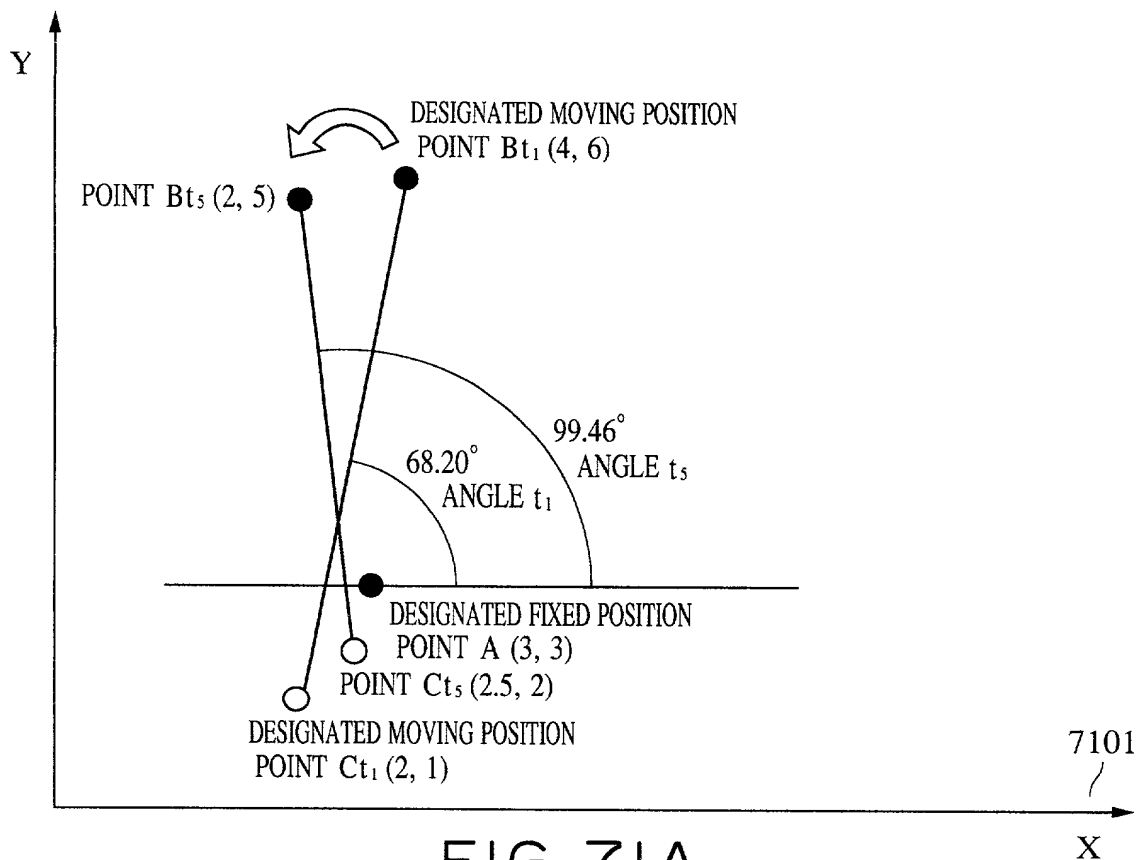


FIG. 71A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	3	3
t <sub>2</sub>	3	3
t <sub>3</sub>	3	3
t <sub>4</sub>	3	3
t <sub>5</sub>	3	3

FIG. 71B

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>	4.0	6.0
t <sub>2</sub>	3.5	5.8
t <sub>3</sub>	3.0	5.4
t <sub>4</sub>	2.5	5.2
t <sub>5</sub>	2.0	5.0

FIG. 71C

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT C

	C <sub>x</sub>	C <sub>y</sub>
t <sub>1</sub>	2	1
t <sub>2</sub>	2.1	1.2
t <sub>3</sub>	2.3	1.5
t <sub>4</sub>	2.4	1.8
t <sub>5</sub>	2.5	2

FIG. 71D

DATA OF CHANGE IN ANGLE OF DESIGNATED MOVING POSITIONS

	ANGLE OF DESIGNATED MOVING POSITION	AMOUNT OF CHANGE
t <sub>1</sub>	68.20	0.00
t <sub>2</sub>	73.07	4.87
t <sub>3</sub>	79.82	11.63
t <sub>4</sub>	88.32	20.12
t <sub>5</sub>	99.46	31.26

FIG. 71E

# ROTATION OPERATION ABOUT THE CENTER OF GRAVITY OF DESIGNATED MOVING POSITION

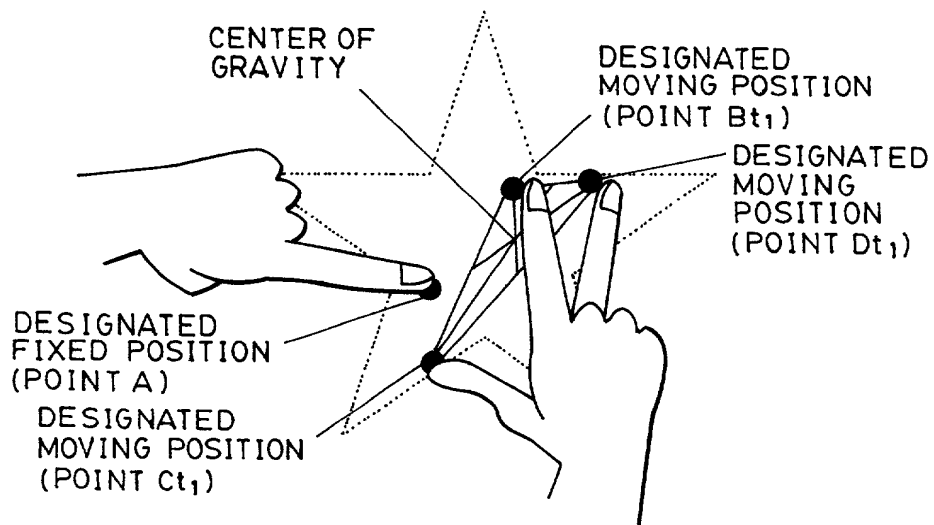


FIG. 72A

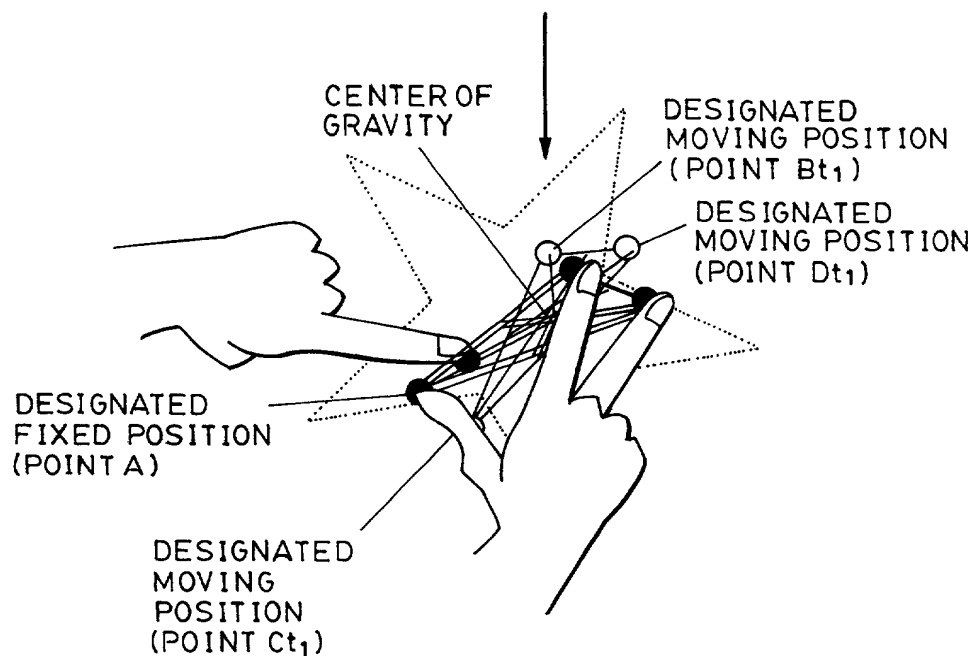


FIG. 72B

FIG. 73A

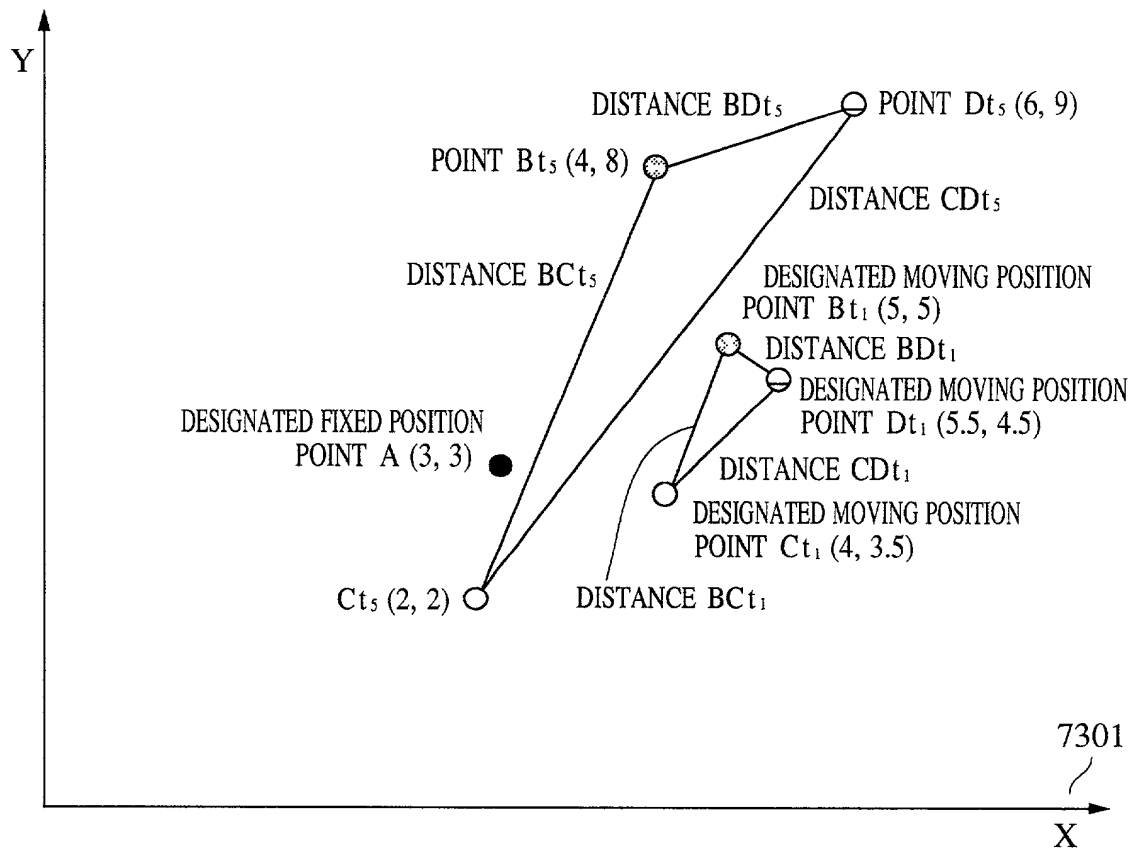


FIG. 73A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	3	3
t <sub>2</sub>	3	3
t <sub>3</sub>	3	3
t <sub>4</sub>	3	3
t <sub>5</sub>	3	3

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>	5.0	5.0
t <sub>2</sub>	4.7	5.8
t <sub>3</sub>	4.4	6.3
t <sub>4</sub>	4.2	7.2
t <sub>5</sub>	4.0	8.0

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT C

	C <sub>x</sub>	C <sub>y</sub>
t <sub>1</sub>	4.0	3.5
t <sub>2</sub>	3.8	3.3
t <sub>3</sub>	3.4	2.8
t <sub>4</sub>	2.8	2.3
t <sub>5</sub>	2.0	2.0

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT D

	D <sub>x</sub>	D <sub>y</sub>
t <sub>1</sub>	5.5	4.5
t <sub>2</sub>	5.6	6.0
t <sub>3</sub>	5.8	7.0
t <sub>4</sub>	5.9	8.0
t <sub>5</sub>	6.0	9.0

7302

FIG. 73B

FIG. 73C

FIG. 73D

FIG. 73E

DATA OF CHANGE IN DESIGNATED  
POSITION-TO-POSITION DISTANCE

	DISTANCE BETWEEN B AND C	MAGNIFICATION (DISTANCE t <sub>n</sub> / DISTANCE t <sub>1</sub> )
t <sub>1</sub>	1.803	100%
t <sub>2</sub>	2.657	147%
t <sub>3</sub>	3.640	202%
t <sub>4</sub>	5.096	283%
t <sub>5</sub>	6.325	351%

DATA OF CHANGE IN DESIGNATED  
POSITION-TO-POSITION DISTANCE

	DISTANCE BETWEEN B AND D	MAGNIFICATION (DISTANCE t <sub>n</sub> / DISTANCE t <sub>1</sub> )
t <sub>1</sub>	0.707	100%
t <sub>2</sub>	0.922	130%
t <sub>3</sub>	1.565	221%
t <sub>4</sub>	1.879	266%
t <sub>5</sub>	2.236	316%

DATA OF CHANGE IN DESIGNATED  
POSITION-TO-POSITION DISTANCE

	DISTANCE BETWEEN C AND D	MAGNIFICATION (DISTANCE t <sub>n</sub> / DISTANCE t <sub>1</sub> )
t <sub>1</sub>	1.803	100%
t <sub>2</sub>	3.245	180%
t <sub>3</sub>	4.837	268%
t <sub>4</sub>	6.488	360%
t <sub>5</sub>	8.062	447%

7303

FIG. 73F

FIG. 73G

FIG. 73H

FIG. 74

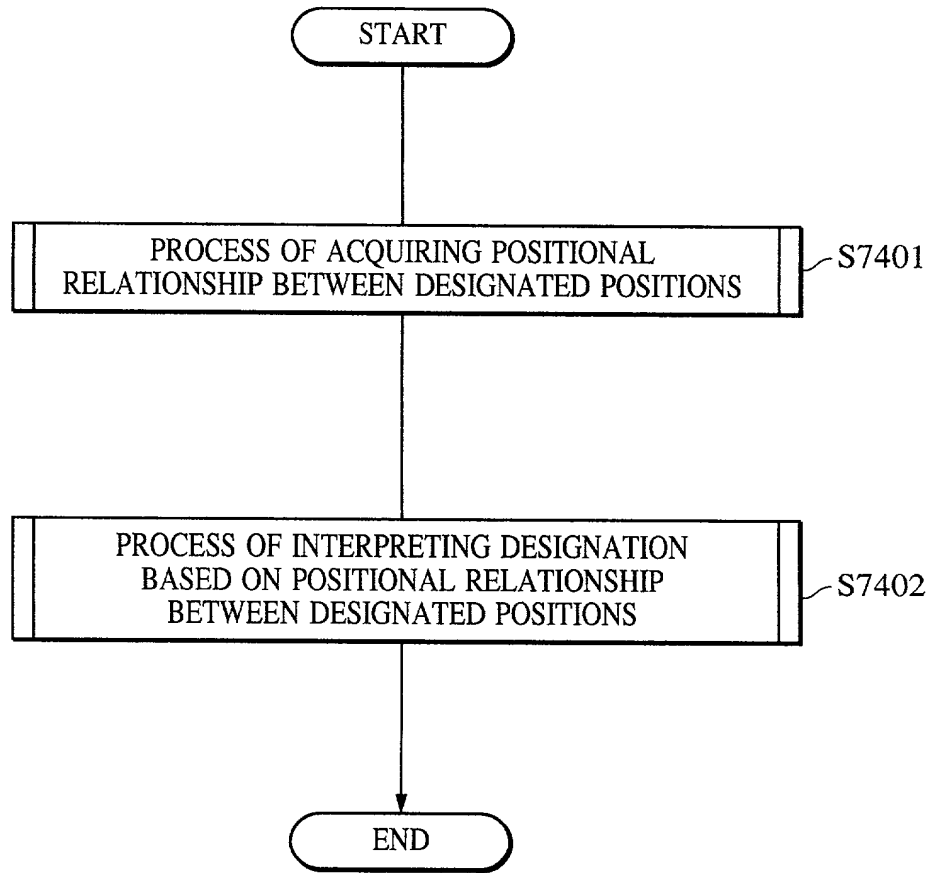


FIG. 74

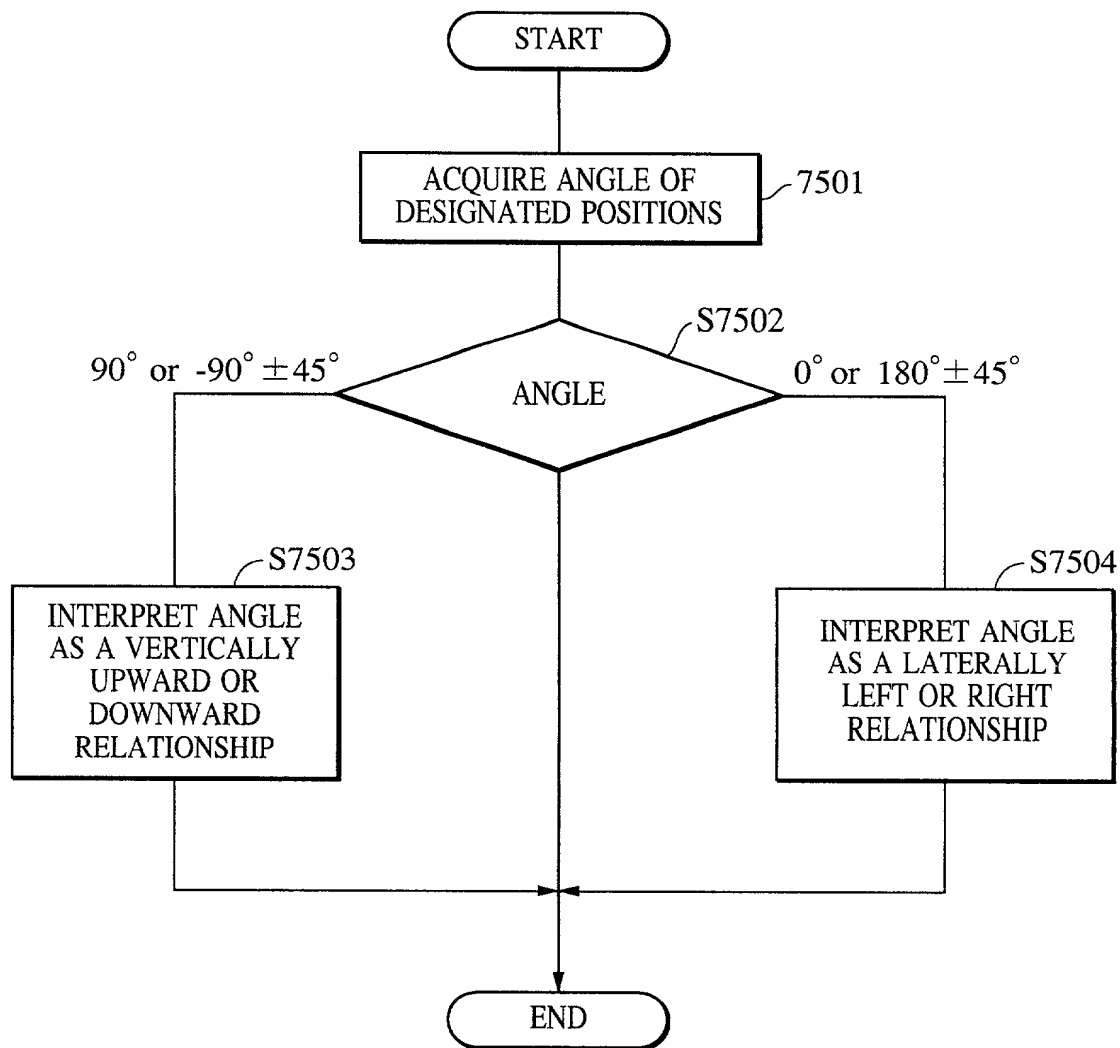


FIG. 75

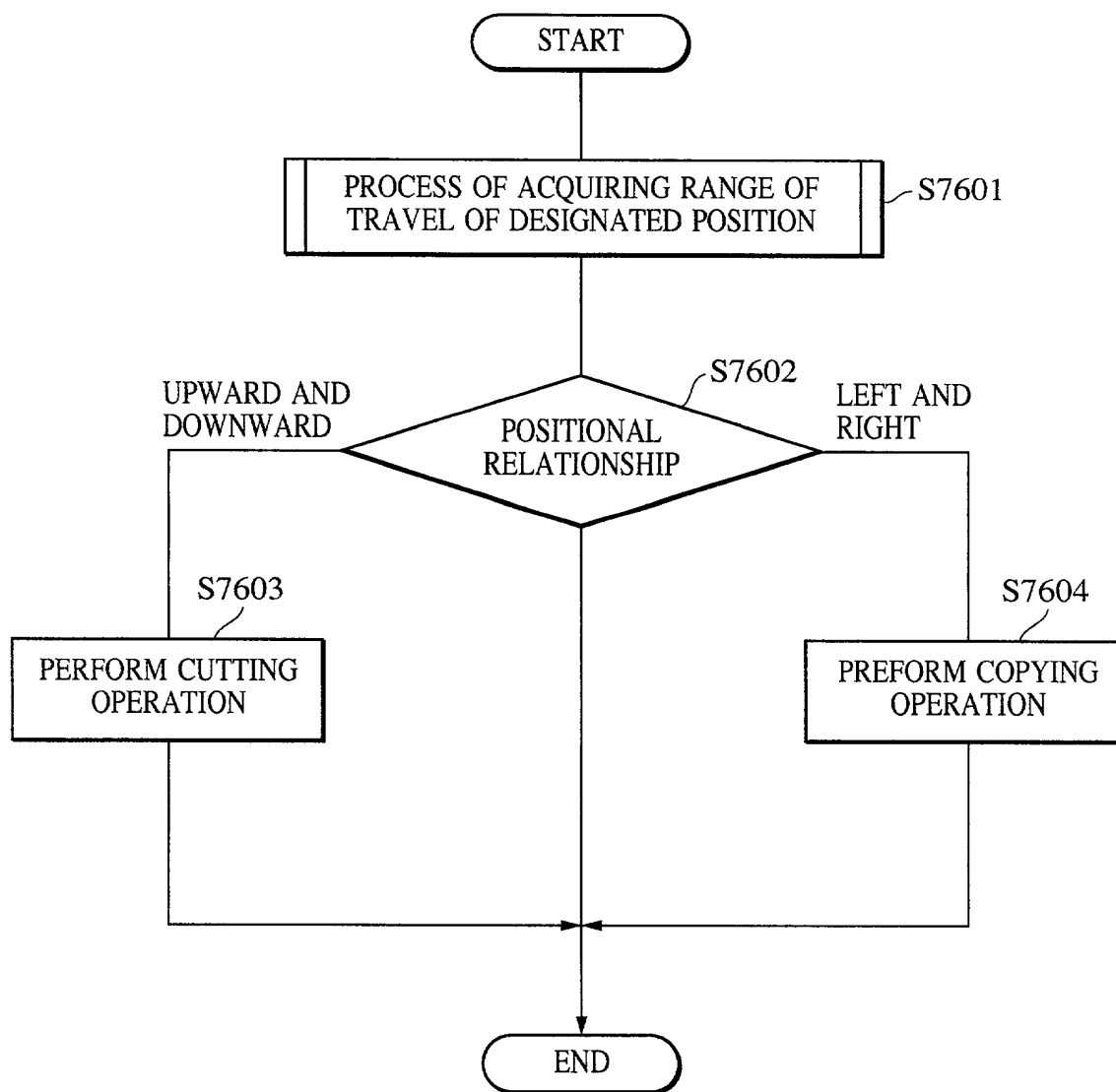


FIG. 76

PARALLEL TRAVEL WITH VERTICAL  
RELATIONSHIP MAINTAINED

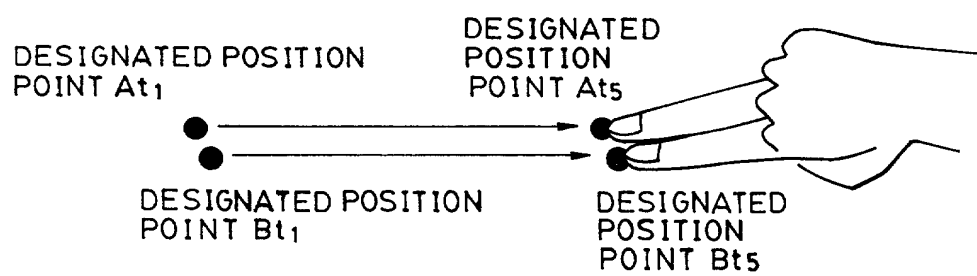


FIG. 77



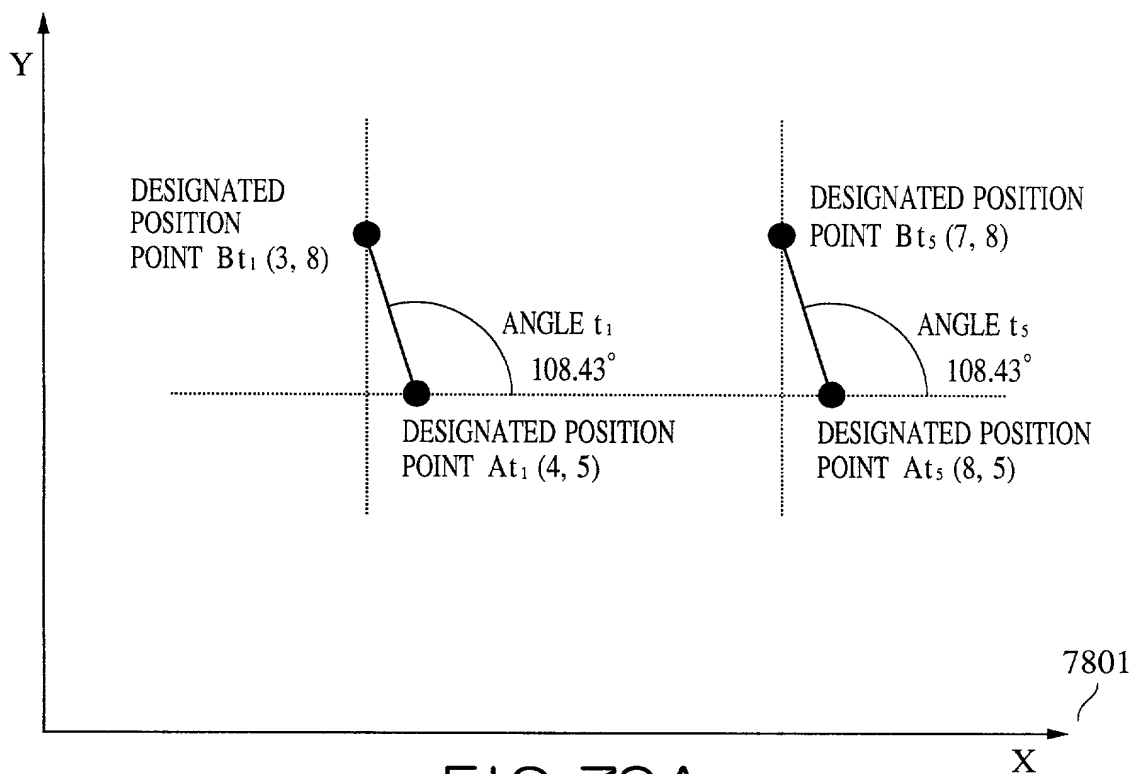


FIG. 78A

DESIGNATED POSITION  
POSITION DATA OF POINT A

	A <sub>X</sub>	A <sub>Y</sub>
t <sub>1</sub>	4.0	5.0
t <sub>2</sub>	5.0	5.0
t <sub>3</sub>	6.0	5.0
t <sub>4</sub>	7.0	5.0
t <sub>5</sub>	8.0	5.0

FIG. 78B

DESIGNATED POSITION  
POSITION DATA OF POINT B

	B <sub>X</sub>	B <sub>Y</sub>
t <sub>1</sub>	3.0	8.0
t <sub>2</sub>	4.0	8.0
t <sub>3</sub>	5.0	8.0
t <sub>4</sub>	6.0	8.0
t <sub>5</sub>	7.0	8.0

7802

FIG. 78C

POSITION DATA OF DESIGNATED POSITIONS

	ANGLE OF DESIGNATED POSITIONS
t <sub>1</sub>	108.43
t <sub>2</sub>	108.43
t <sub>3</sub>	108.43
t <sub>4</sub>	108.43
t <sub>5</sub>	108.43

7803

FIG. 78D

PARALLEL TRAVEL WITH LATERAL  
RELATIONSHIP MAINTAINED

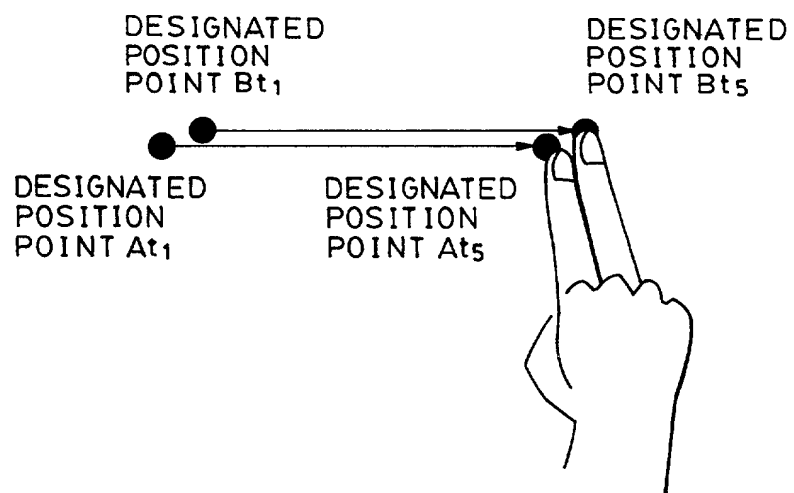


FIG. 79

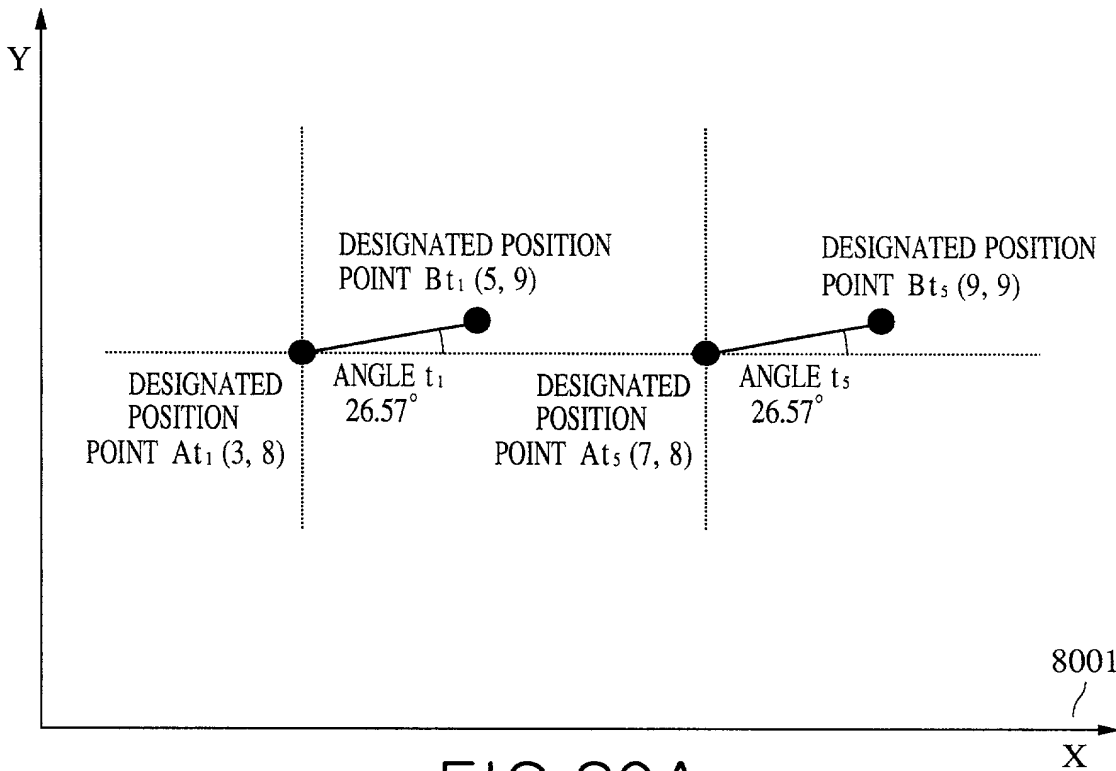


FIG. 80A

DESIGNATED POSITION  
POSITION DATA OF POINT A

	$A_X$	$A_Y$
$t_1$	3.0	8.0
$t_2$	4.0	8.0
$t_3$	5.0	8.0
$t_4$	6.0	8.0
$t_5$	7.0	8.0

FIG. 80B

DESIGNATED POSITION  
POSITION DATA OF POINT B

	$B_X$	$B_Y$
$t_1$	5.0	9.0
$t_2$	6.0	9.0
$t_3$	7.0	9.0
$t_4$	8.0	9.0
$t_5$	9.0	9.0

8002

FIG. 80C

POSITION DATA OF DESIGNATED POSITIONS

	ANGLE OF DESIGNATED POSITIONS
$t_1$	26.57
$t_2$	26.57
$t_3$	26.57
$t_4$	26.57
$t_5$	26.57

8003

FIG. 80D

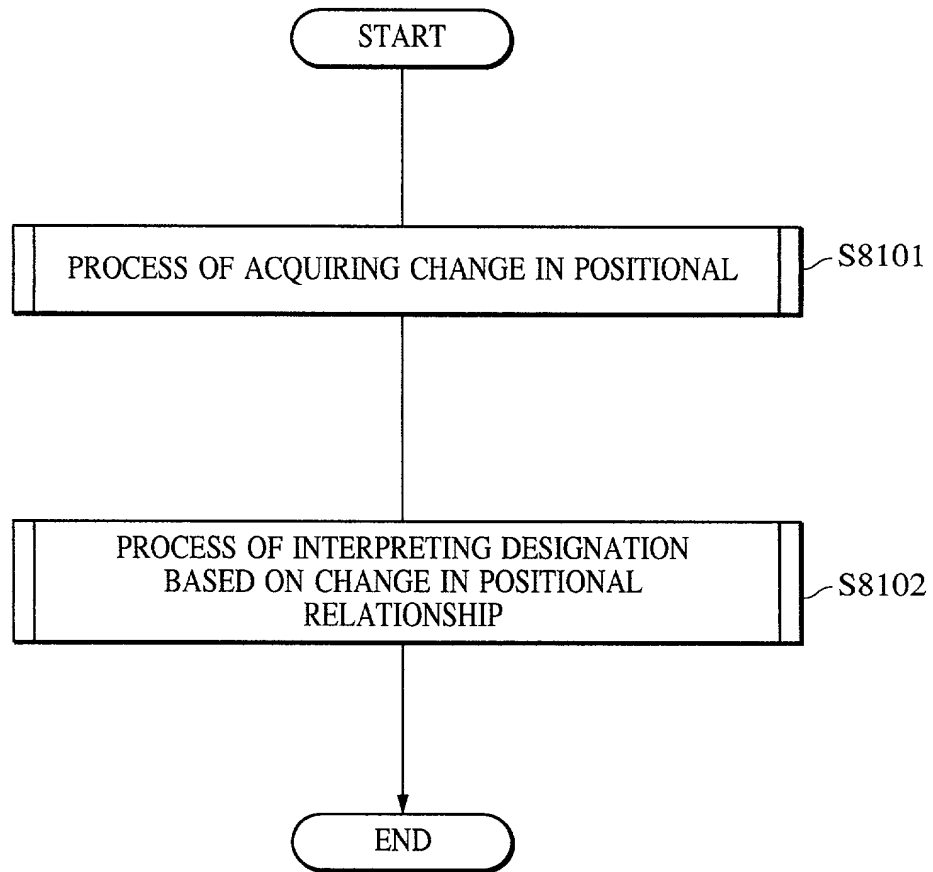


FIG. 81

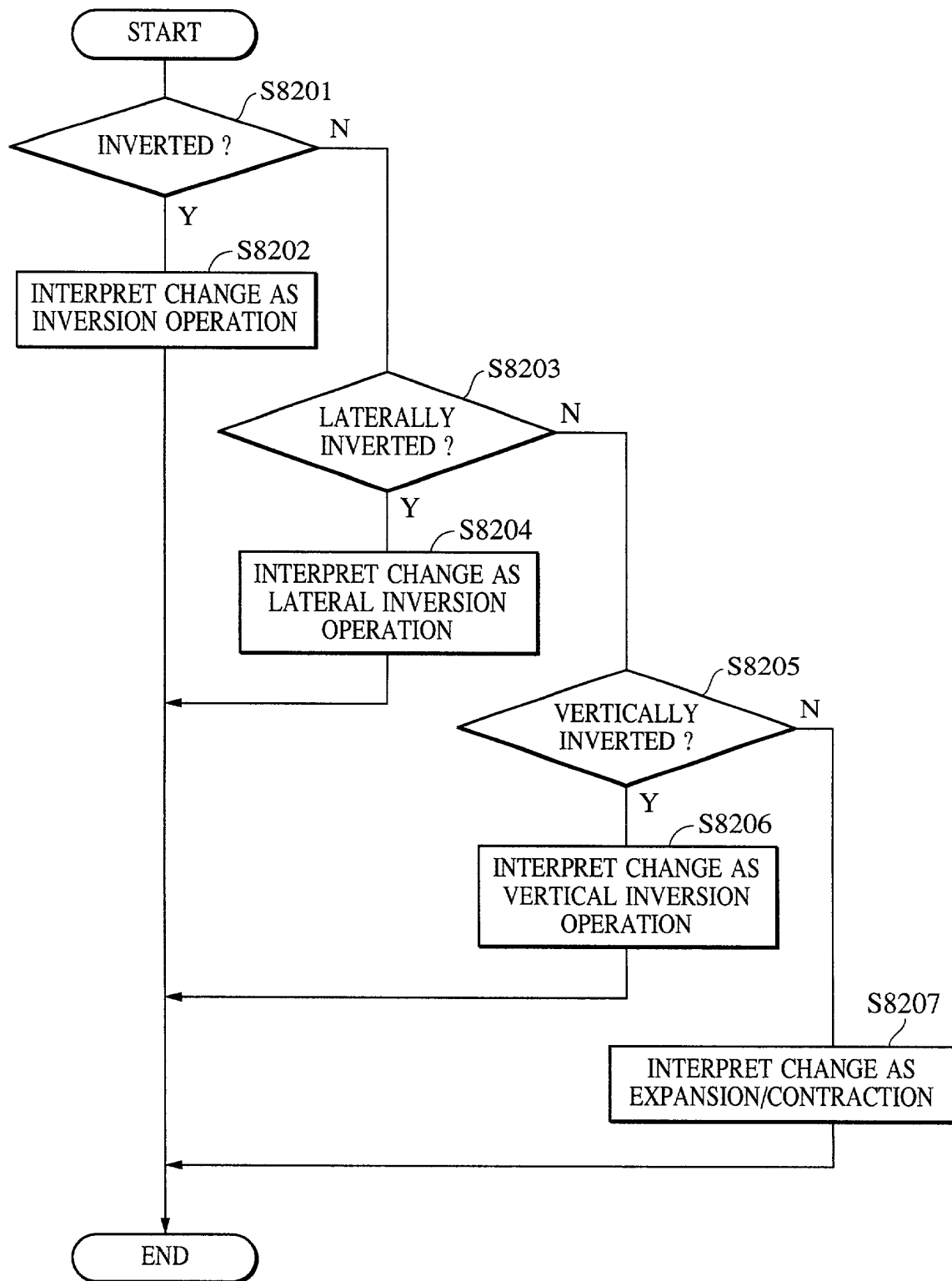


FIG. 82

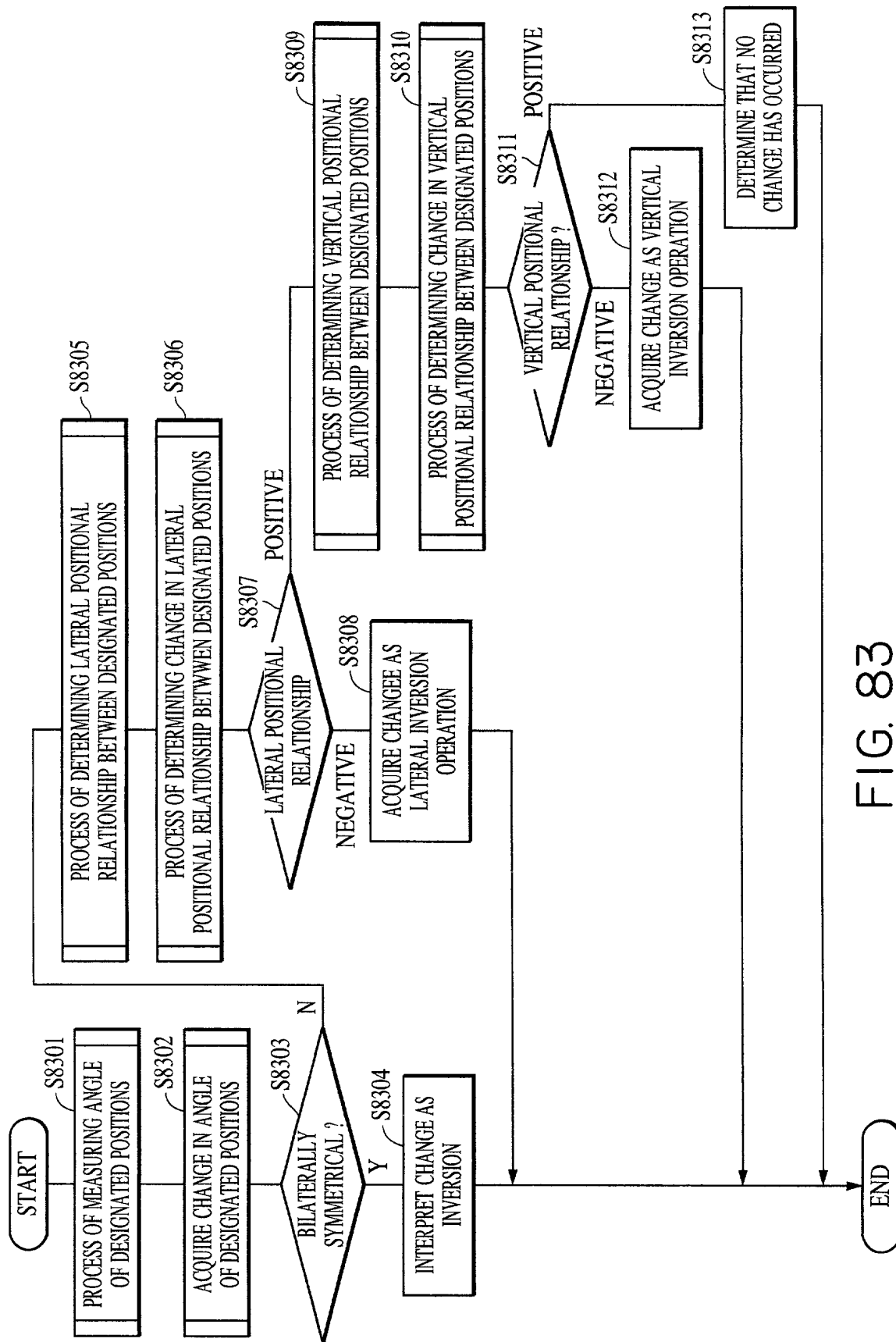
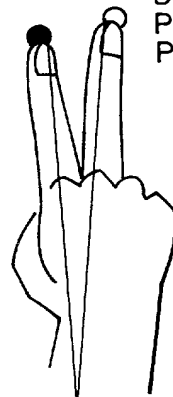


FIG. 83

REVERSAL OPERATION

DESIGNATED  
POSITION  
POINT At<sub>1</sub>

DESIGNATED  
POSITION  
POINT Bt<sub>1</sub>



8401

FIG. 84A



DESIGNATED  
POSITION  
POINT Bt<sub>5</sub>

DESIGNATED  
POSITION  
POINT At<sub>5</sub>



8402

FIG. 84B

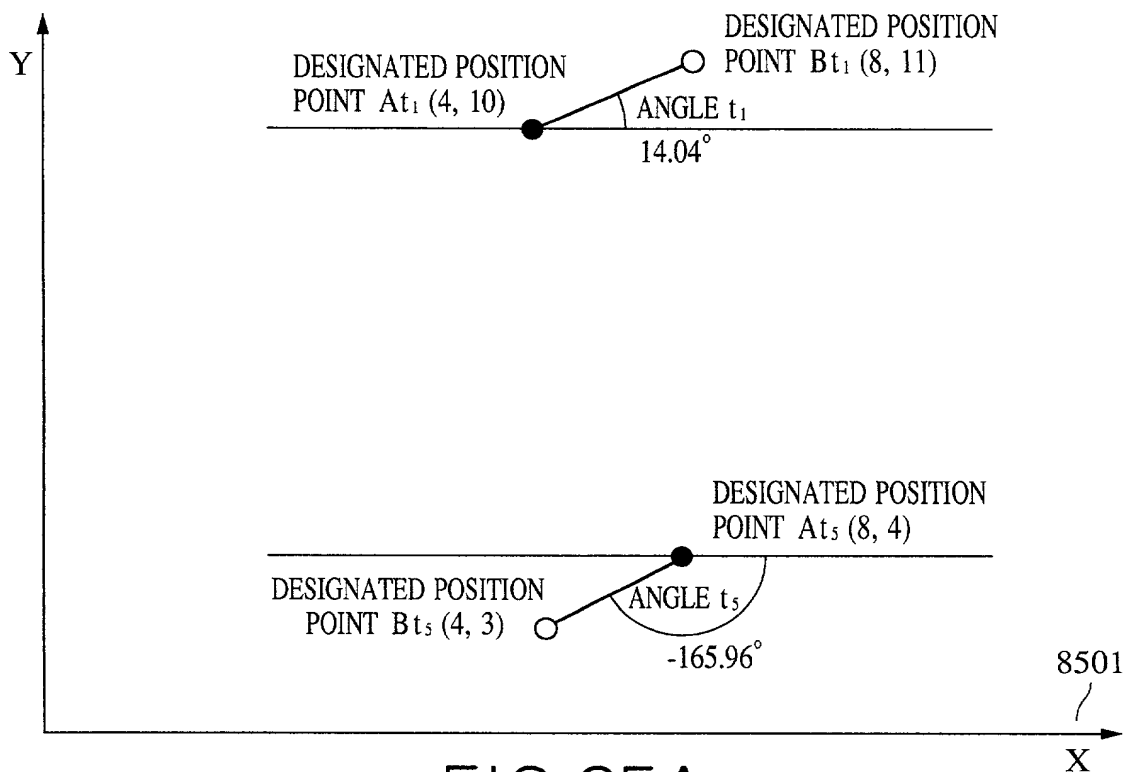


FIG. 85A

DESIGNATED POSITION  
POSITION DATA OF POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	4.0	10.0
t <sub>2</sub>	5.0	8.0
t <sub>3</sub>	6.0	6.0
t <sub>4</sub>	7.0	5.0
t <sub>5</sub>	8.0	4.0

FIG. 85B

DESIGNATED POSITION  
POSITION DATA OF POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>	8.0	11.0
t <sub>2</sub>	7.0	9.0
t <sub>3</sub>	6.0	7.0
t <sub>4</sub>	5.0	5.0
t <sub>5</sub>	4.0	3.0

8502

FIG. 85C

DATA OF CHANGE IN POSITIONAL RELATIONSHIP

8503

	X DIRECTION	Y DIRECTION	ANGLE OF DESIGNATED POSITIONS	CHANGE IN POSITIONAL RELATIONSHIP
t <sub>1</sub>	-4.0	-1.0	14.04	0.00
t <sub>2</sub>	-2.0	-1.0	26.57	-12.53
t <sub>3</sub>	0.0	-1.0	90.00	-75.99
t <sub>4</sub>	2.0	0.0	180.00	-165.96
t <sub>5</sub>	4.0	1.0	-165.96	180.00

FIG. 85D



LATERAL INVERSION

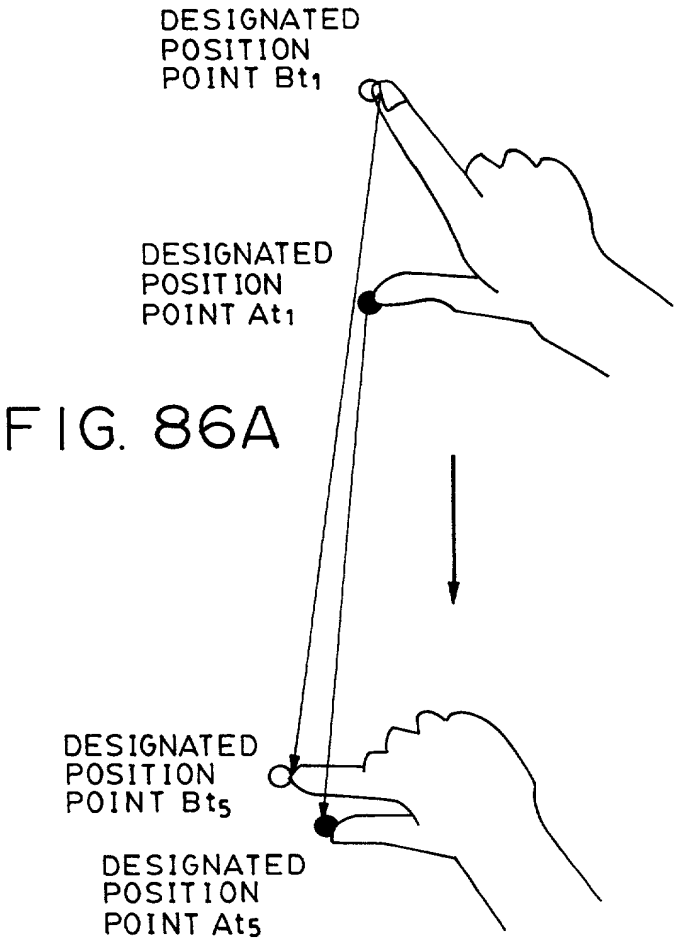


FIG. 86B

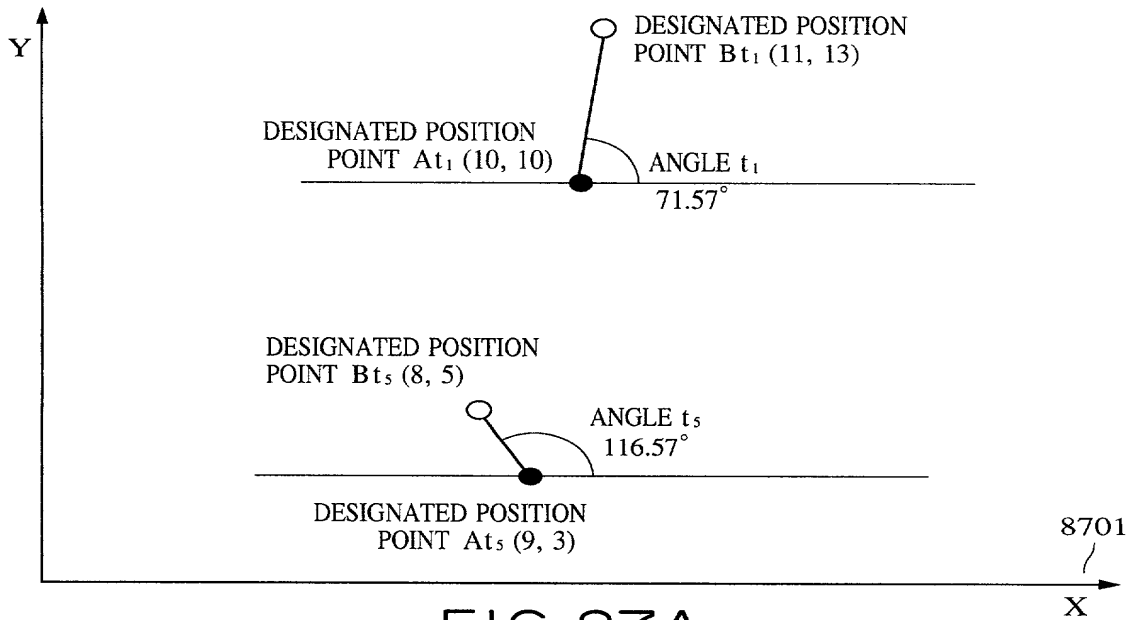


FIG. 87A

DESIGNATED POSITION  
POSITION DATA OF POINT A

	$A_x$	$A_y$
$t_1$	10.0	10.0
$t_2$	9.8	8.0
$t_3$	9.6	6.0
$t_4$	9.3	5.0
$t_5$	9.0	3.0

FIG. 87B

DESIGNATED POSITION  
POSITION DATA OF POINT B

	$B_x$	$B_y$
$t_1$	11.0	13.0
$t_2$	10.8	9.0
$t_3$	10.6	7.0
$t_4$	10.3	6.0
$t_5$	8.0	5.0

8702

FIG. 87C

DATA OF CHANGE IN POSITIONAL RELATIONSHIP

	X DIRECTION	Y DIRECTION	ANGLE OF DESIGNATED POSITIONS	CHANGE IN POSITIONAL RELATIONSHIP
$t_1$	-1.0	-3.0	71.57	0.00
$t_2$	-1.0	-1.0	45.00	26.57
$t_3$	-1.0	-1.0	45.00	26.57
$t_4$	-1.0	-1.0	45.00	26.57
$t_5$	1.0	-2.0	116.57	45.00

8703

FIG. 87D

VERTICAL INVERSION



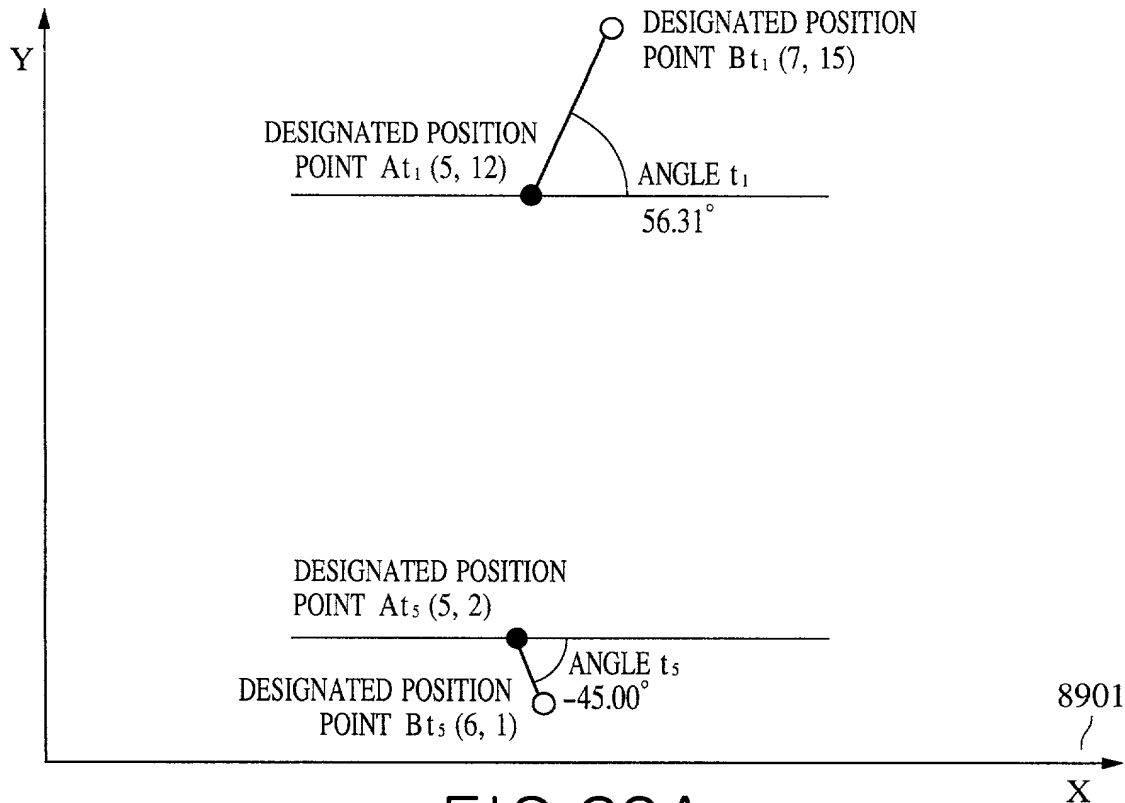


FIG. 89A

DESIGNATED POSITION  
POSITION DATA OF POINT A

	$A_x$	$A_y$
$t_1$	5.0	12.0
$t_2$	5.0	9.0
$t_3$	5.0	6.0
$t_4$	5.0	3.0
$t_5$	5.0	2.0

FIG. 89B

DESIGNATED POSITION  
POSITION DATA OF POINT B

	$B_x$	$B_y$
$t_1$	7.0	15.0
$t_2$	6.8	11.0
$t_3$	6.5	8.0
$t_4$	6.2	4.0
$t_5$	6.0	1.0

FIG. 89C

DATA OF CHANGE IN POSITIONAL RELATIONSHIP

	X DIRECTION	Y DIRECTION	ANGLE OF DESIGNATED POSITIONS	CHANGE IN POSITIONAL RELATIONSHIP
$t_1$	-2.0	-3.0	56.31	0.00
$t_2$	-1.8	-2.0	48.01	8.30
$t_3$	-1.5	-2.0	53.13	3.18
$t_4$	-1.2	-1.0	39.81	16.50
$t_5$	-1.0	1.0	-45.00	101.31

FIG. 89D

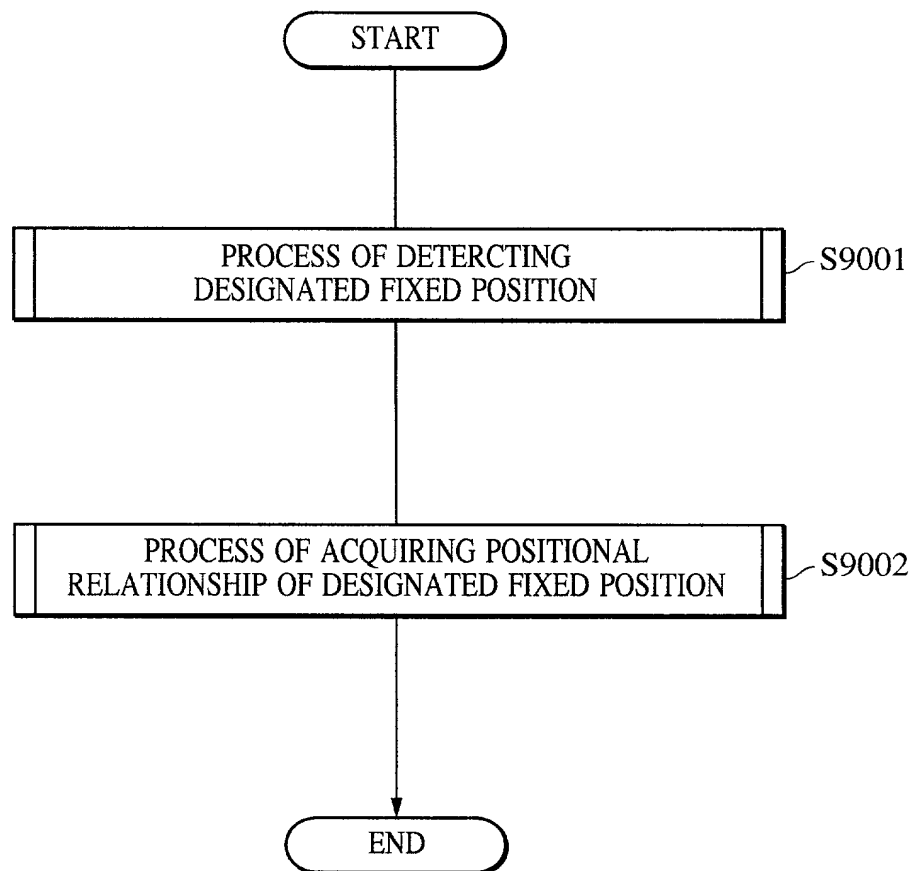


FIG. 90

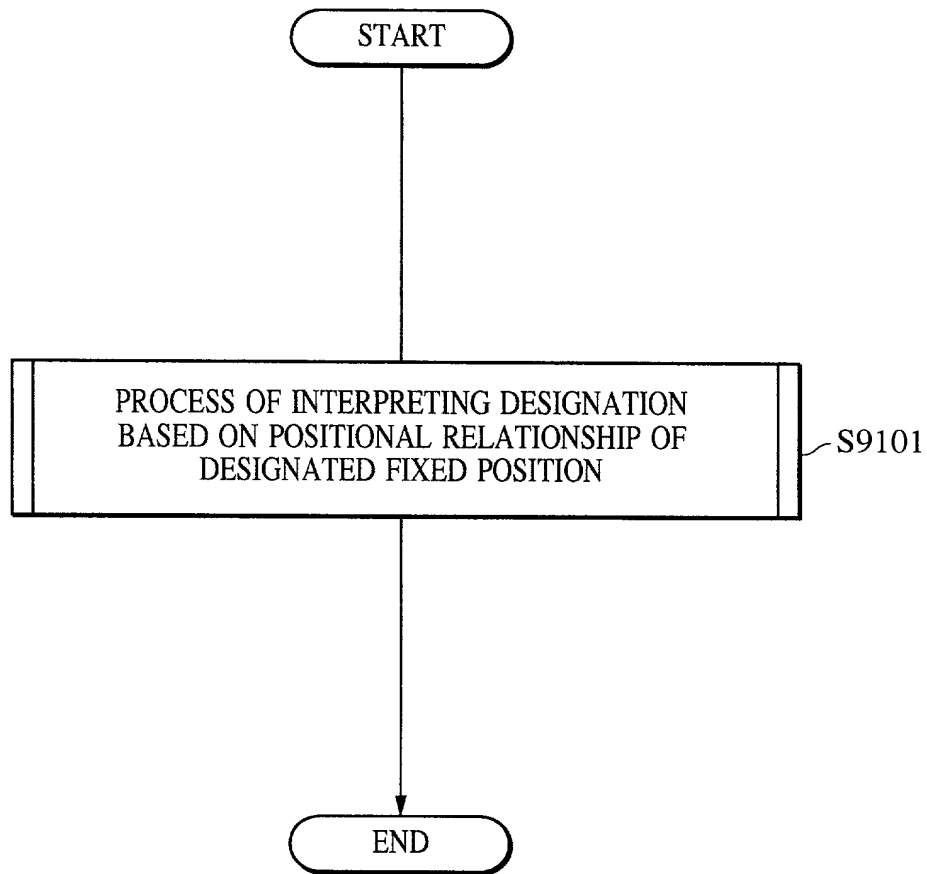


FIG. 91

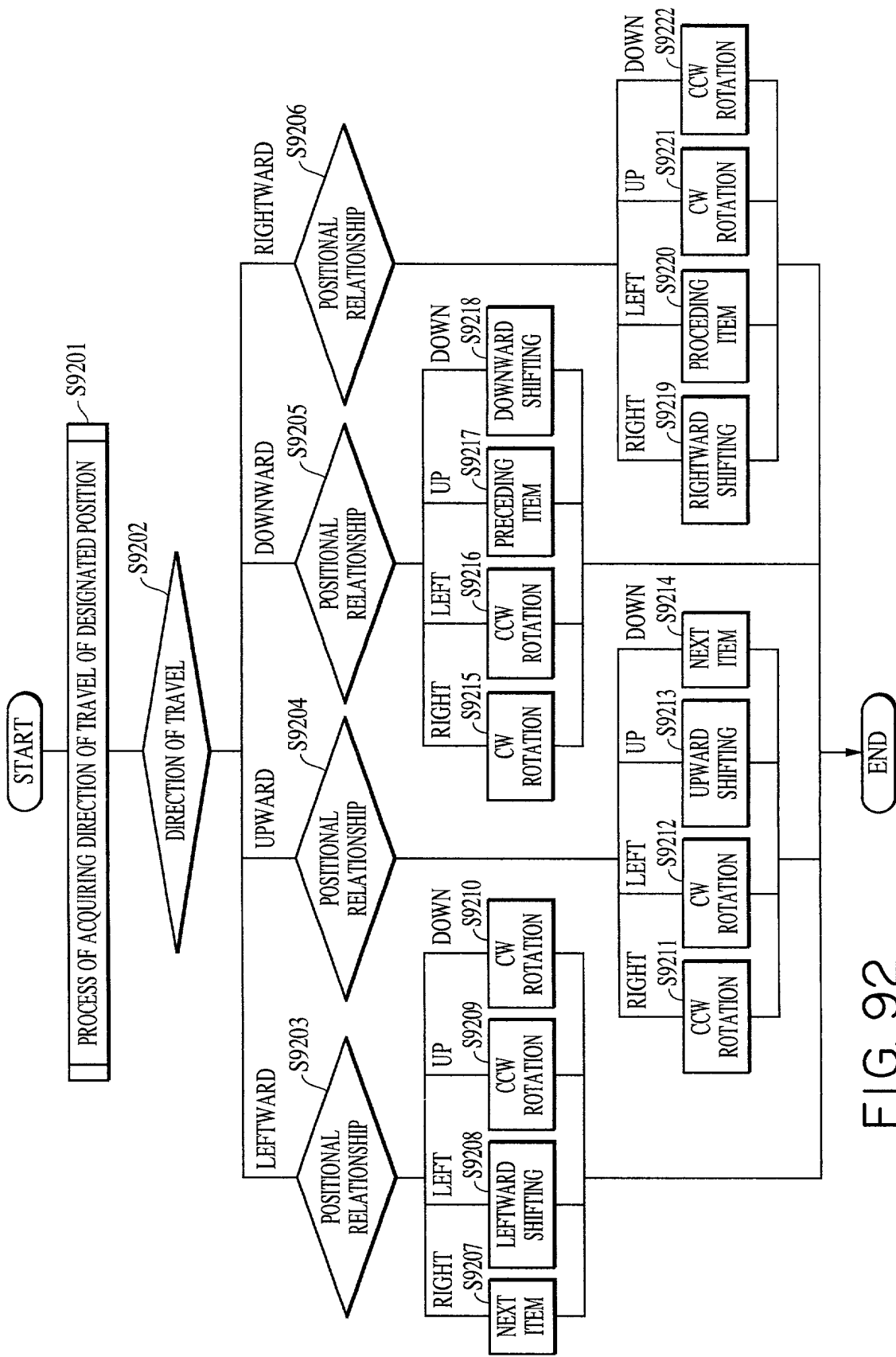


FIG. 92

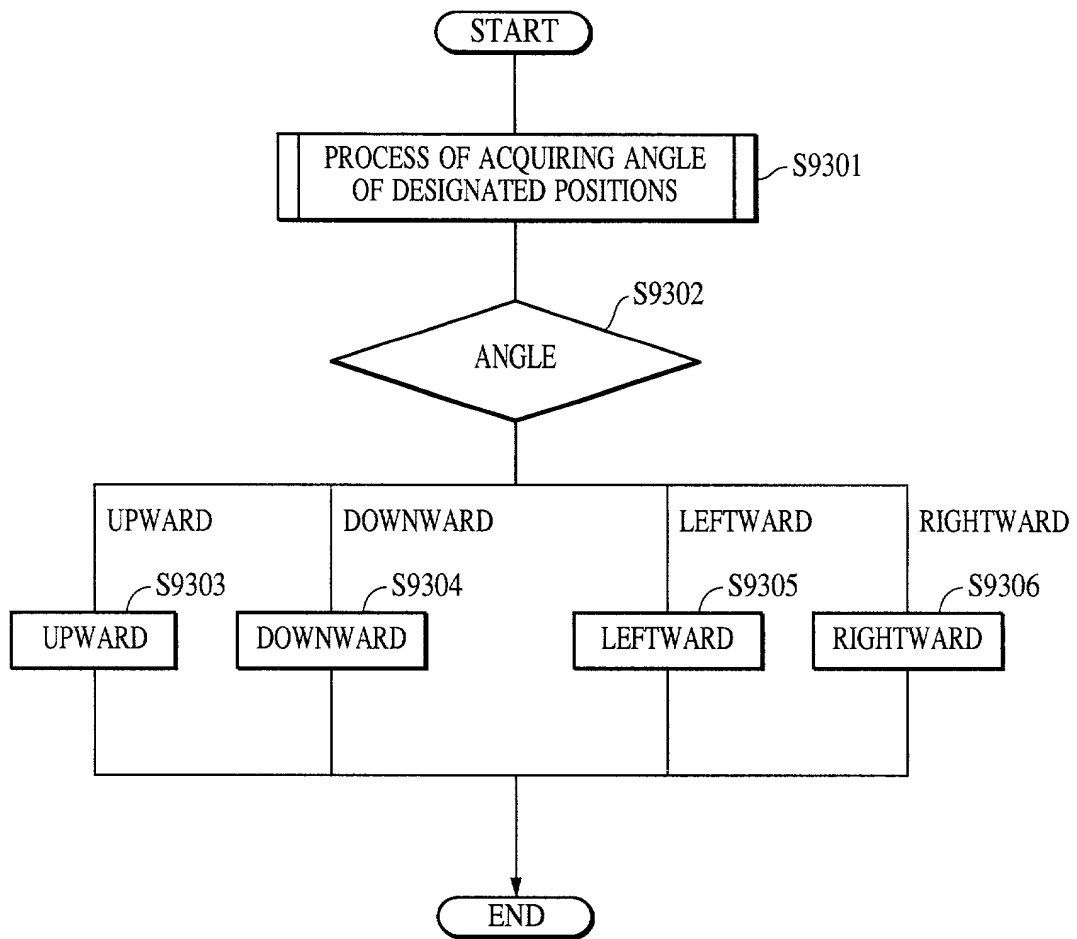


FIG. 93

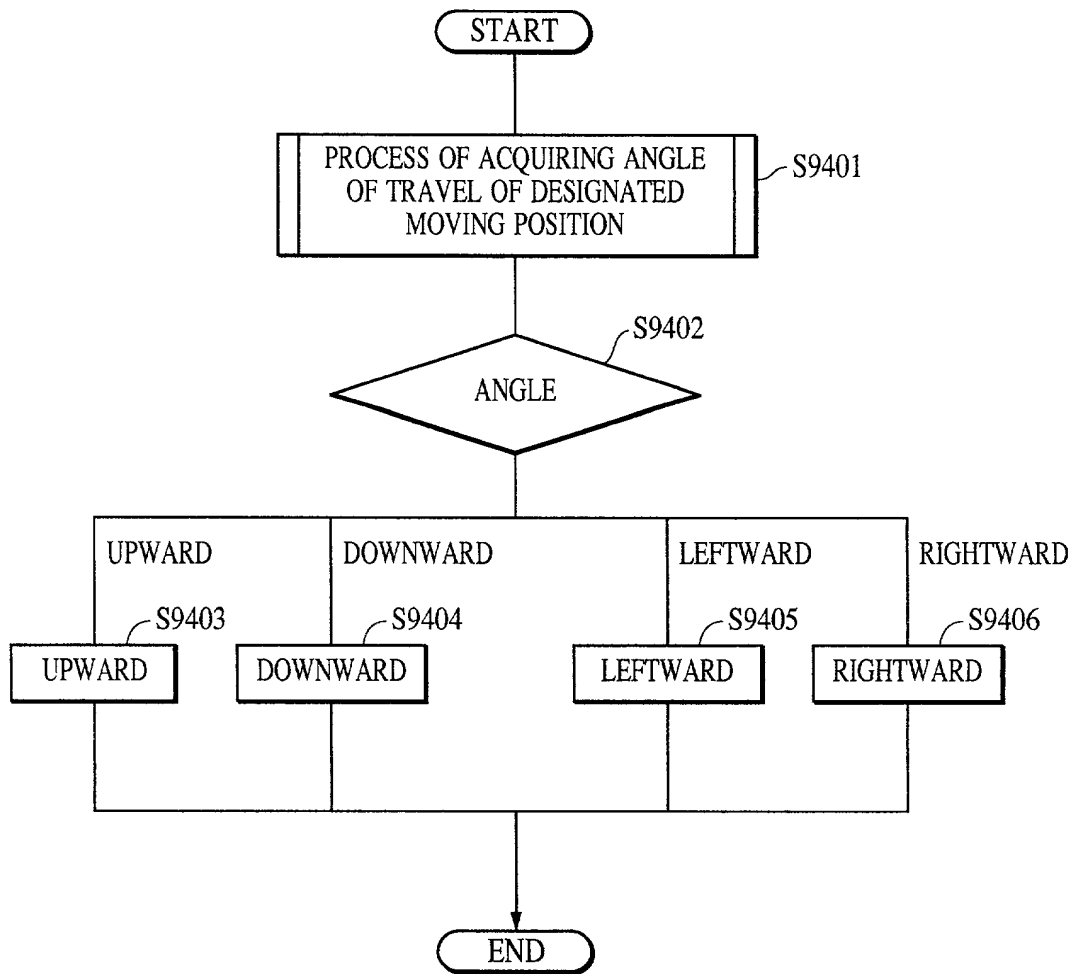
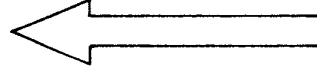


FIG. 94



LEFTWARD  
DIRECTION  
OF TRAVEL



MOVING POSITION ON LEFT  
OF FIXED POSITION

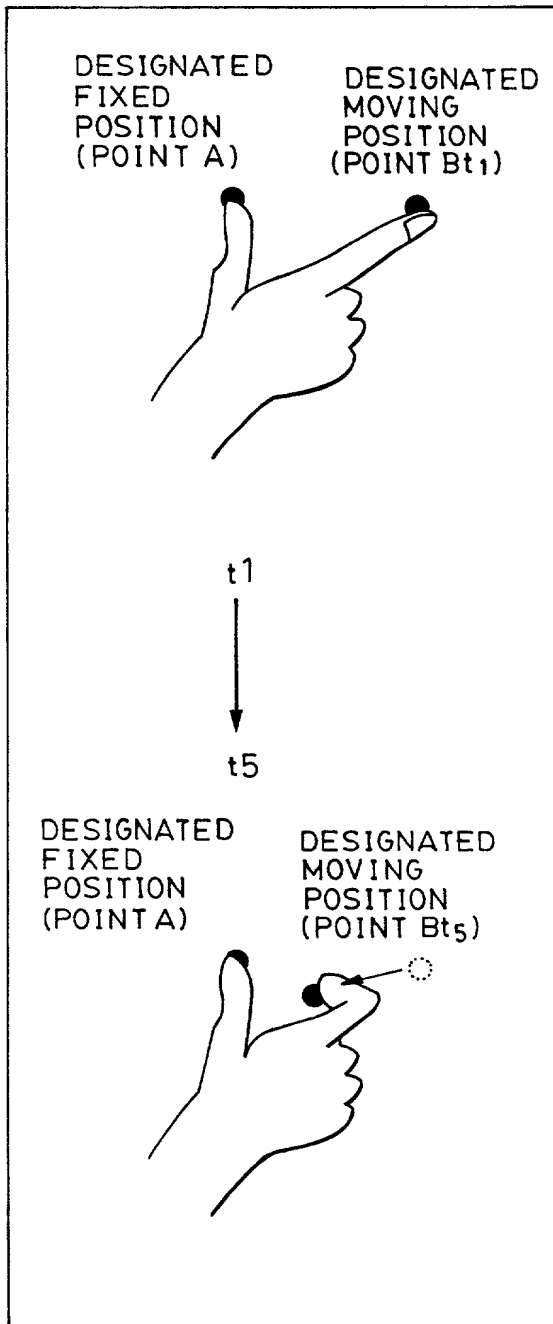


FIG. 95A

MOVING POSITION ON RIGHT  
OF FIXED POSITION

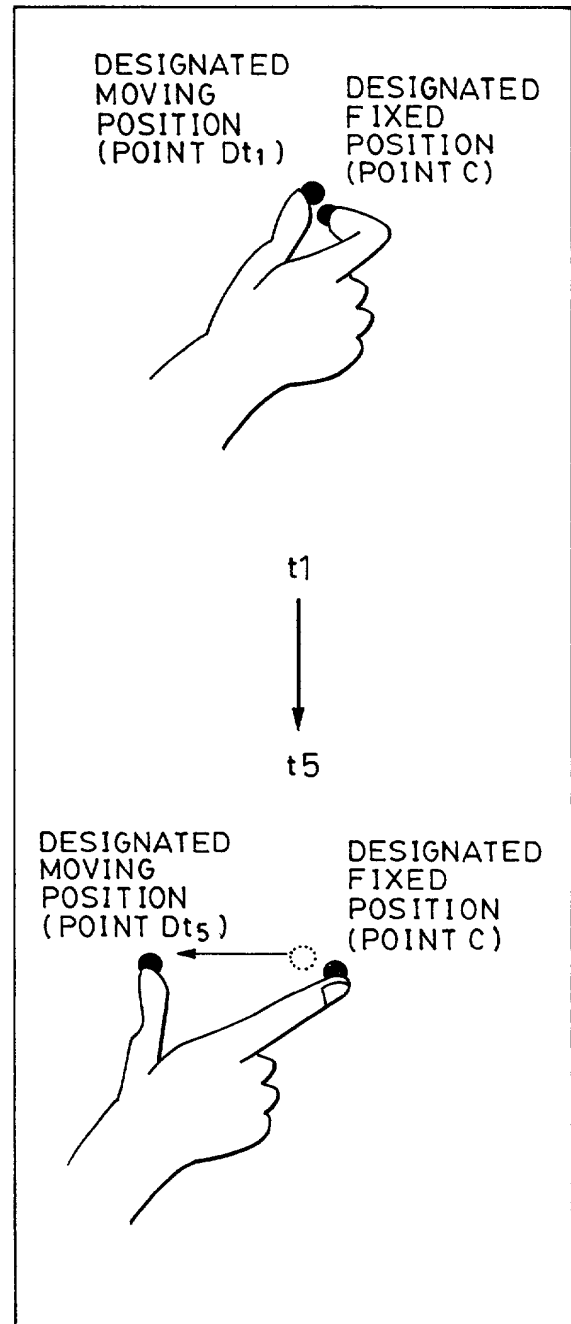


FIG. 95B

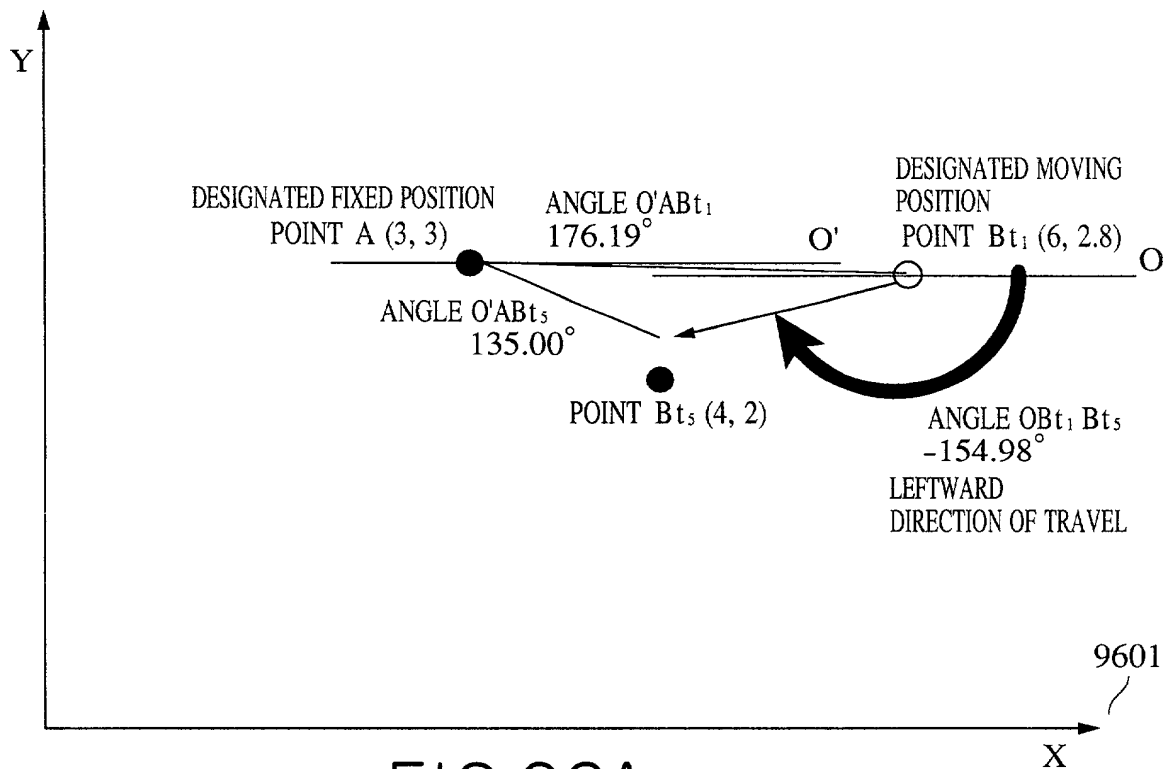


FIG. 96A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	3	3
t <sub>2</sub>	3	3
t <sub>3</sub>	3	3
t <sub>4</sub>	3	3
t <sub>5</sub>	3	3

FIG. 96B

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>	6.0	3.0
t <sub>2</sub>	5.3	2.3
t <sub>3</sub>	4.7	1.7
t <sub>4</sub>	4.3	1.2
t <sub>5</sub>	4.0	2.0

FIG. 96C

DATA OF TRAVEL OF DESIGNATED MOVING POSITION

	TRAVEL OF POINT A	TRAVEL OF POINT B	ANGLE OF DESIGNATED POSITIONS	DIRECTION OF TRAVEL
t <sub>1</sub>	0.000	0.000	176.19	-158.20
t <sub>2</sub>	0.000	0.000	163.30	-154.98
t <sub>3</sub>	0.000	1.729	142.05	-154.98
t <sub>4</sub>	0.000	2.310	126.53	-154.98
t <sub>5</sub>	0.000	2.154	135.00	-154.98

FIG. 96D

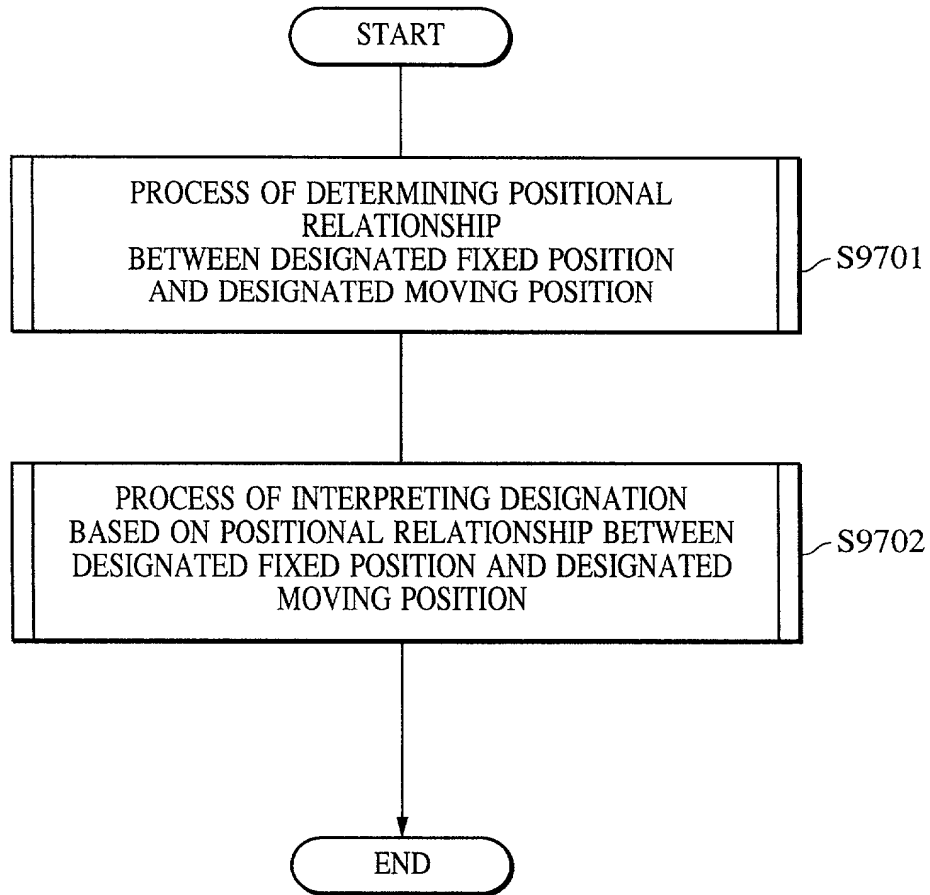


FIG. 97

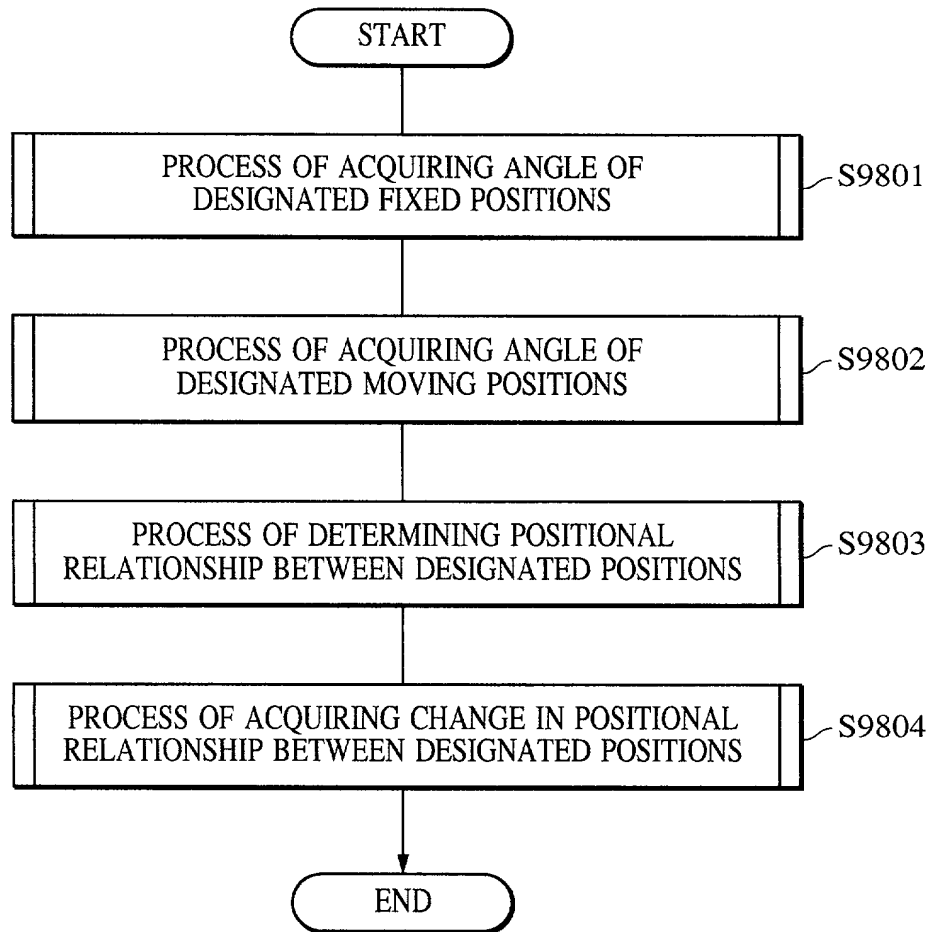


FIG. 98

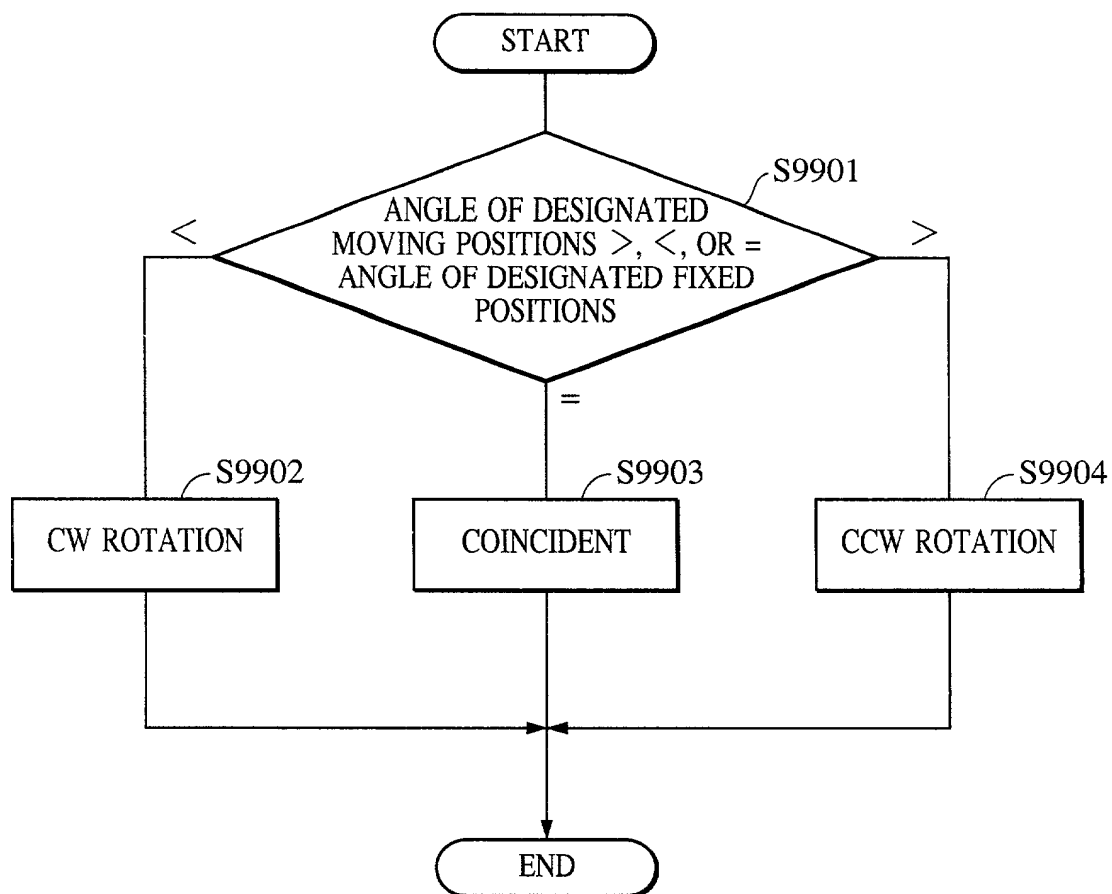


FIG. 99

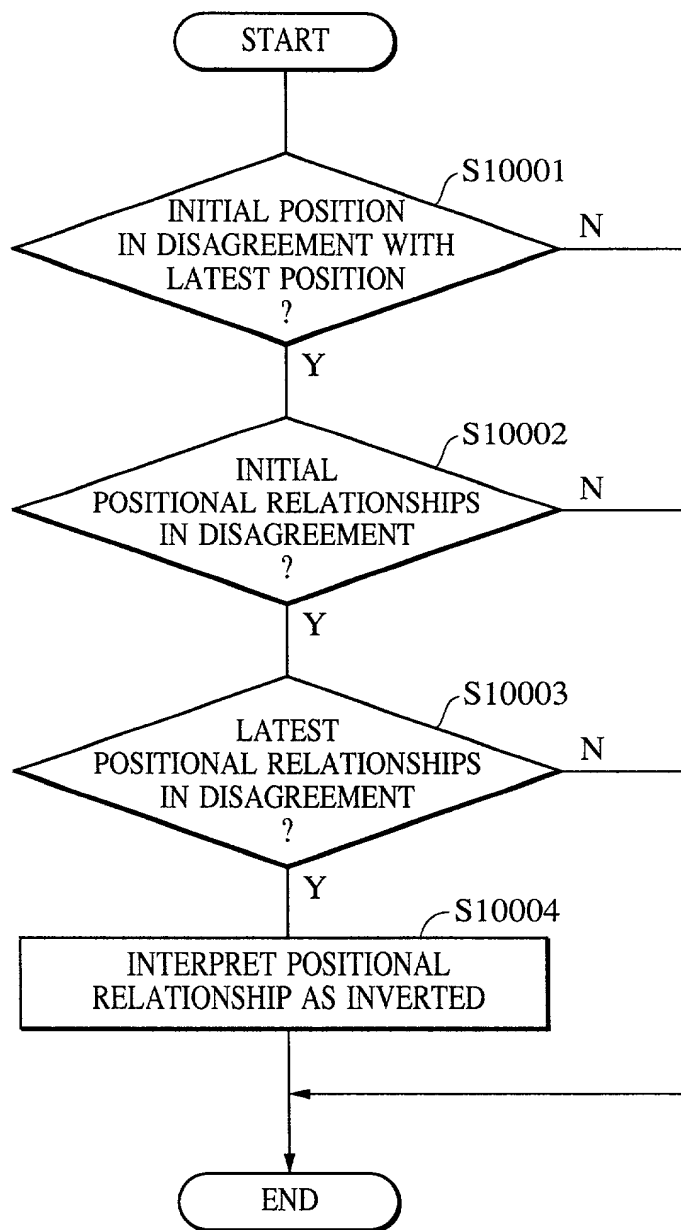


FIG. 100

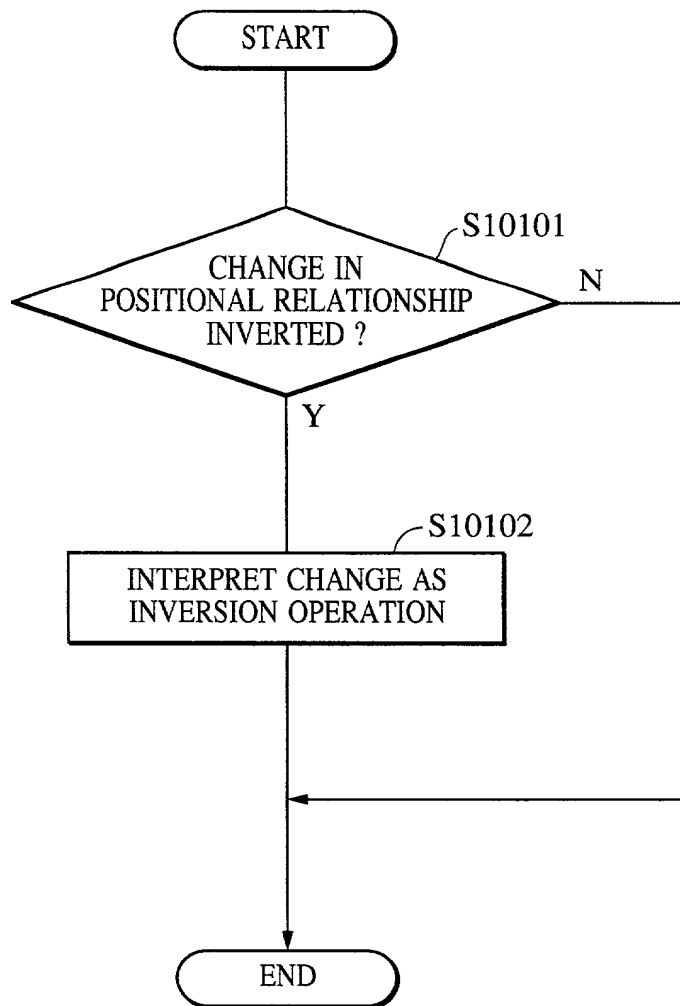


FIG. 101

SYMMETRICAL INVERSION

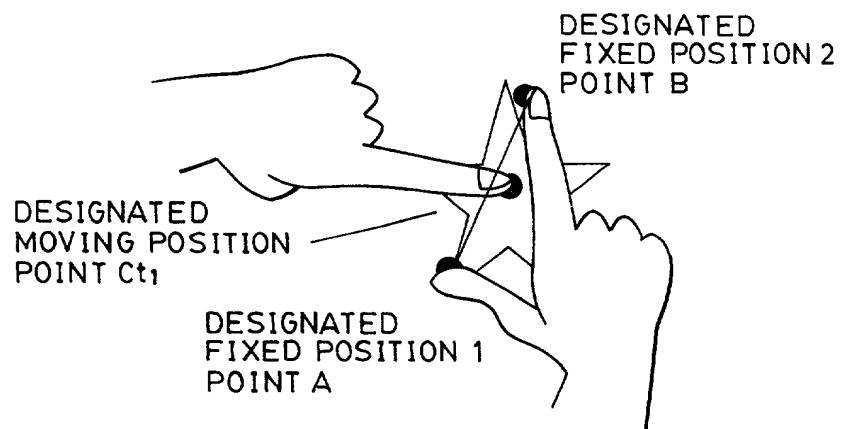


FIG. 102A

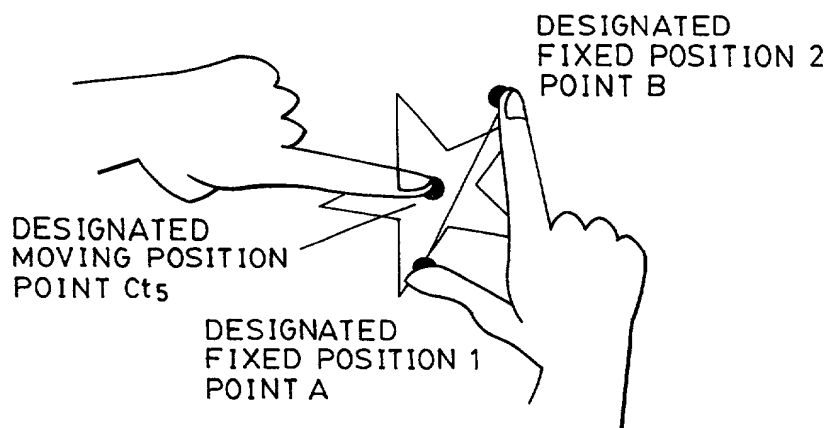


FIG. 102B



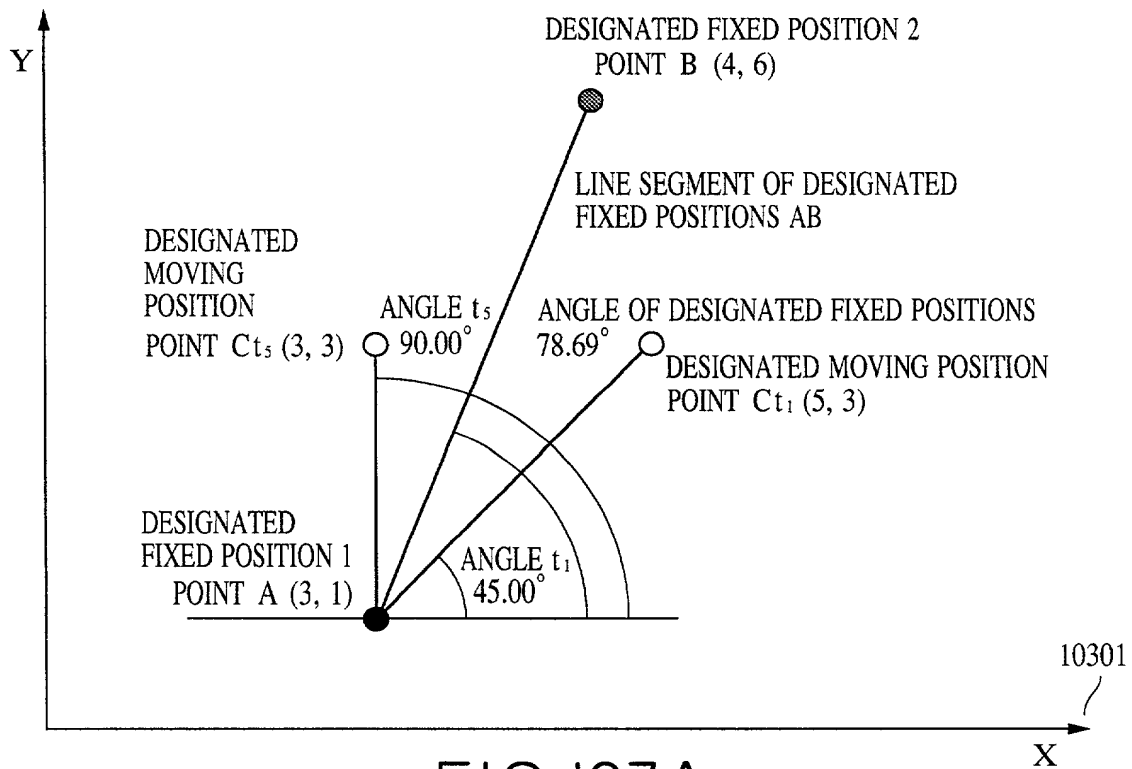


FIG. 103A

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT A

	$A_x$	$A_y$
$t_1$	3.0	1.0
$t_2$	3.0	1.0
$t_3$	3.0	1.0
$t_4$	3.0	1.0
$t_5$	3.0	1.0

FIG. 103B

DESIGNATED FIXED POSITION  
POSITION DATA OF POINT B

	$B_x$	$B_y$
$t_1$	4.0	6.0
$t_2$	4.0	6.0
$t_3$	4.0	6.0
$t_4$	4.0	6.0
$t_5$	4.0	6.0

FIG. 103C

DESIGNATED MOVING POSITION  
POSITION DATA OF POINT C

	$C_x$	$C_y$
$t_1$	5.0	3.0
$t_2$	4.5	3.0
$t_3$	4.0	3.0
$t_4$	3.5	3.0
$t_5$	3.0	3.0

FIG. 103D

POSITIONAL RELATIONSHIP DATA OF TWO DESIGNATED  
FIXED POSITIONS AND DESIGNATED MOVING POSITION

	ANGLE OF FIXED POSITIONS	ANGLE OF MOVING POSITIONS
$t_1$	78.69	45.00
$t_2$	78.69	53.13
$t_3$	78.69	63.43
$t_4$	78.69	75.96
$t_5$	78.69	90.00

FIG. 103E

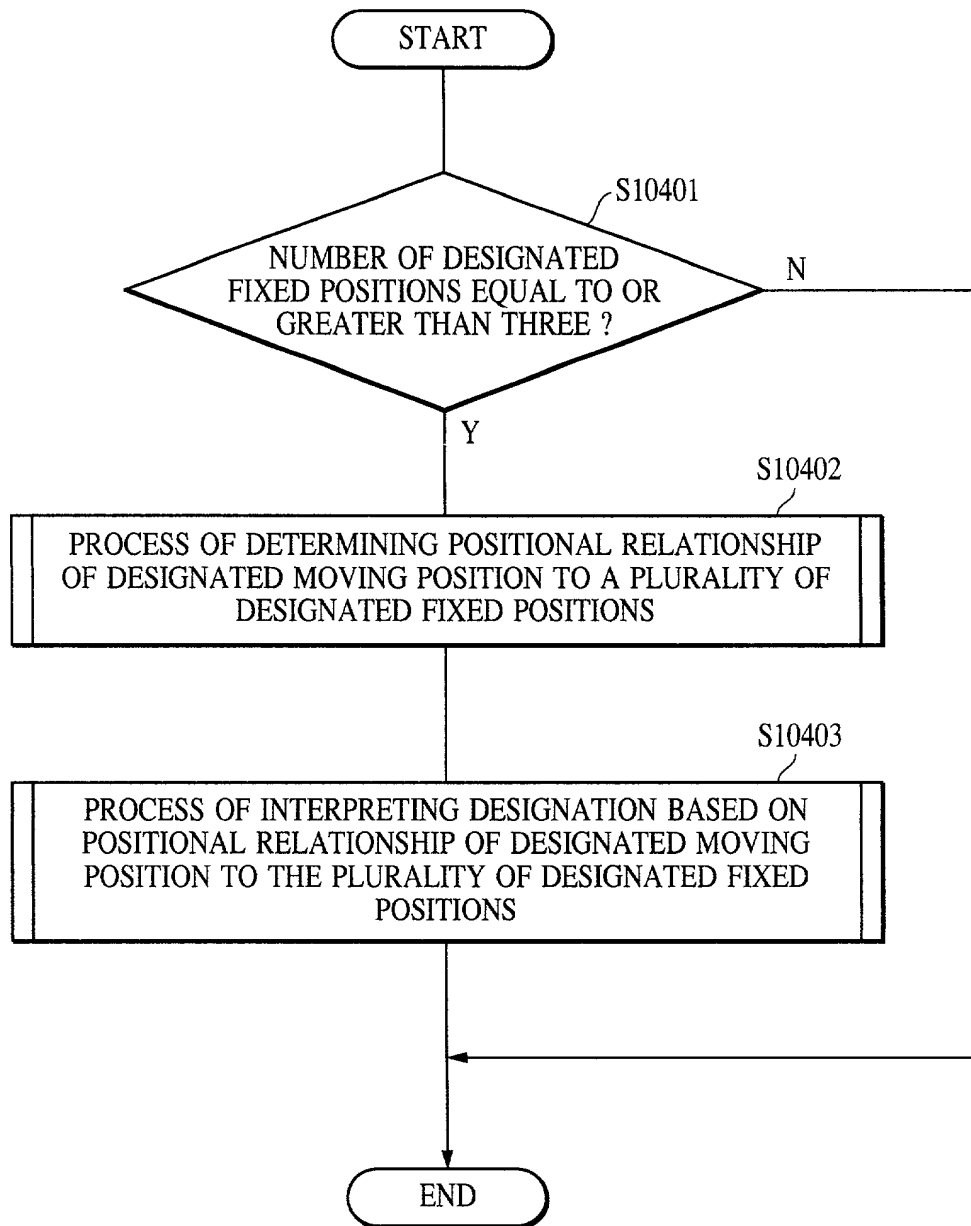


FIG. 104

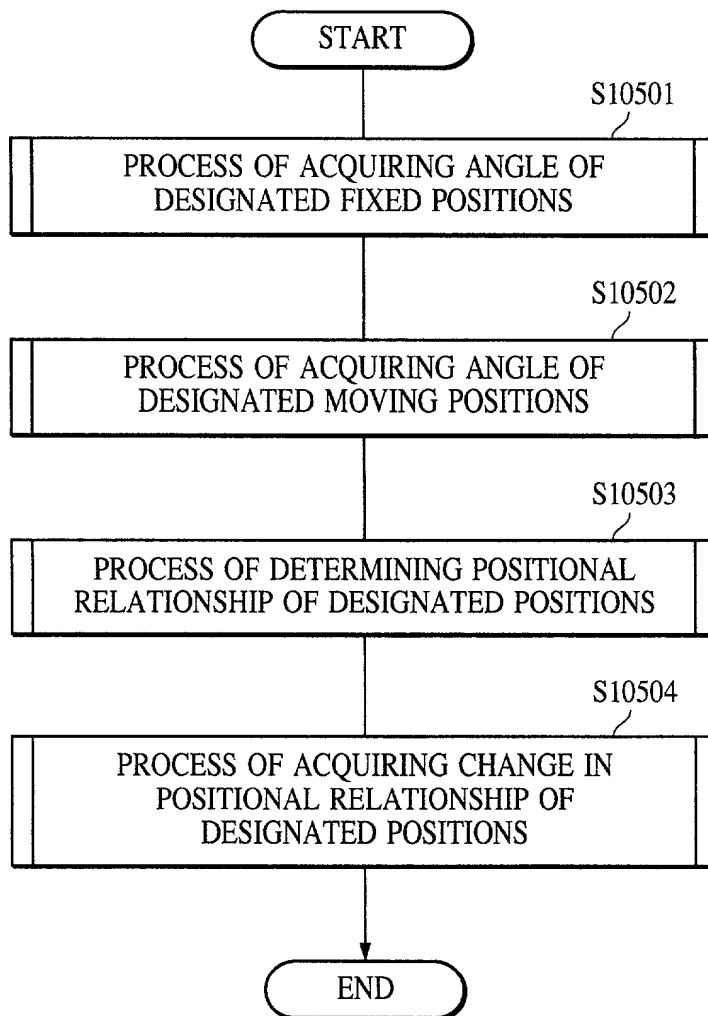


FIG. 105

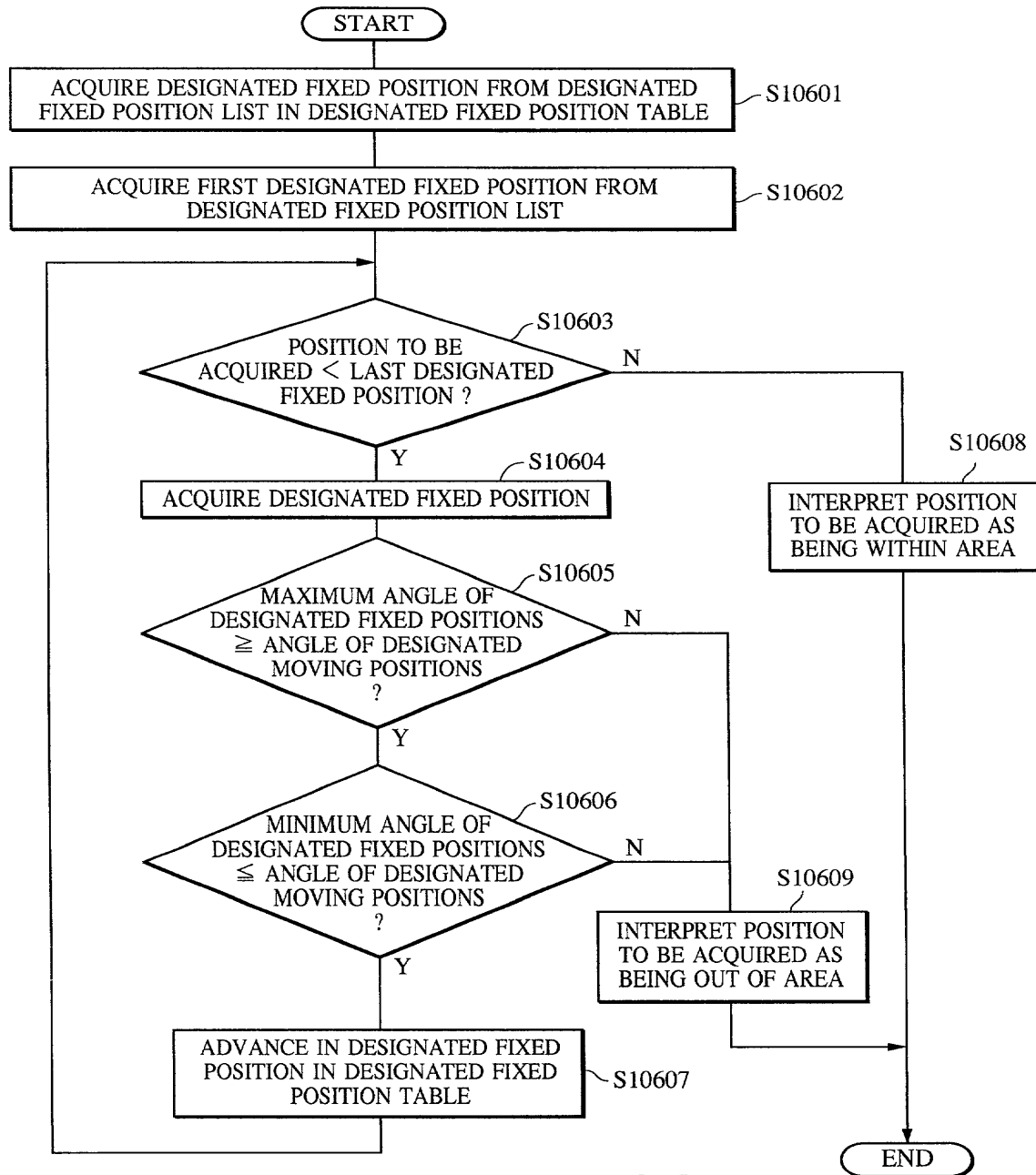


FIG. 106

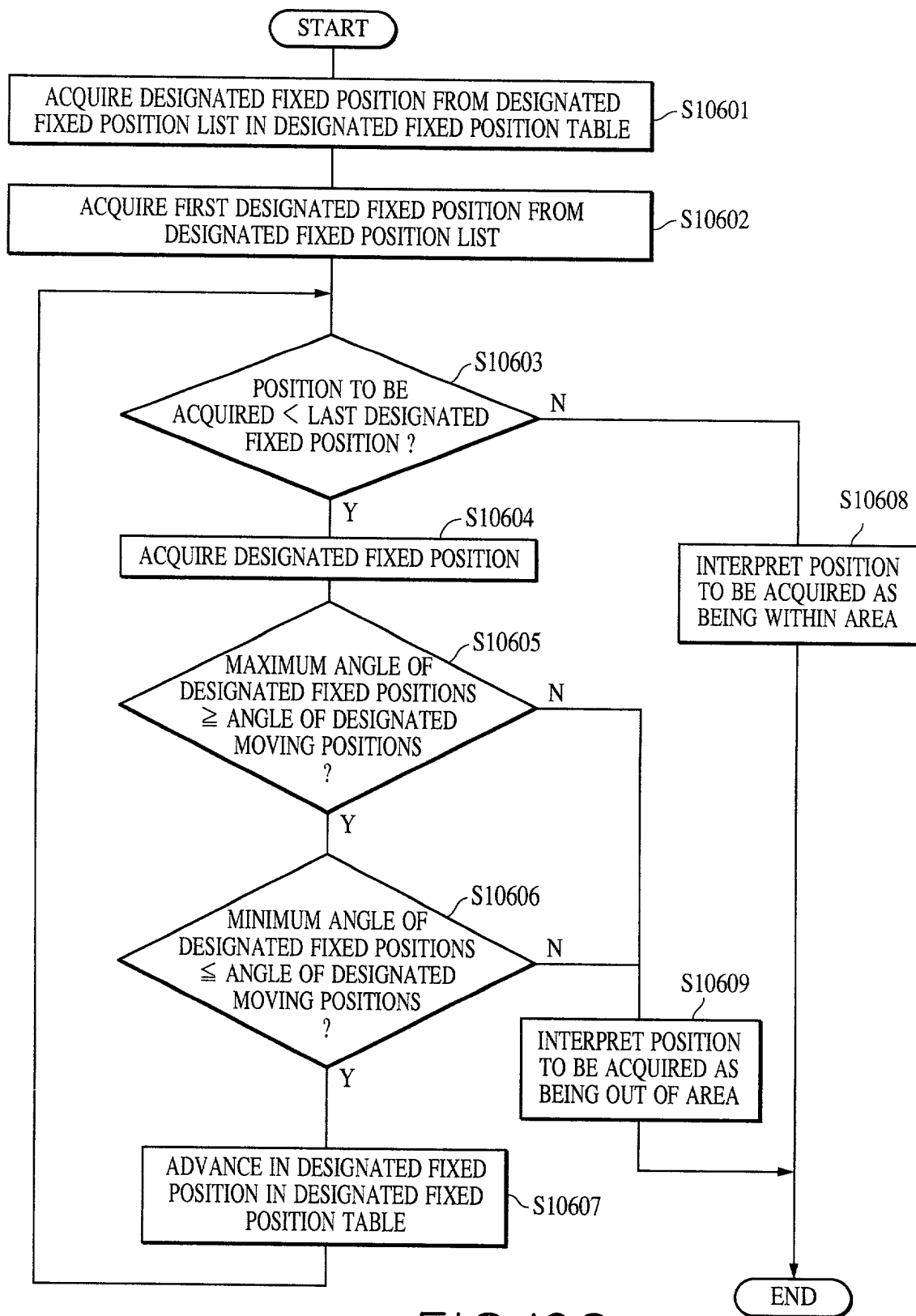


FIG. 106

WITHIN AREA

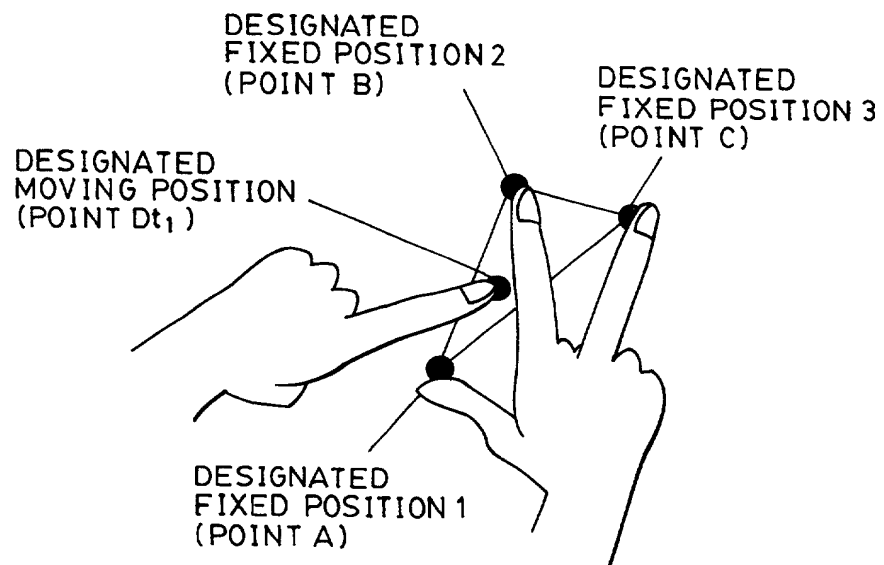


FIG. 107

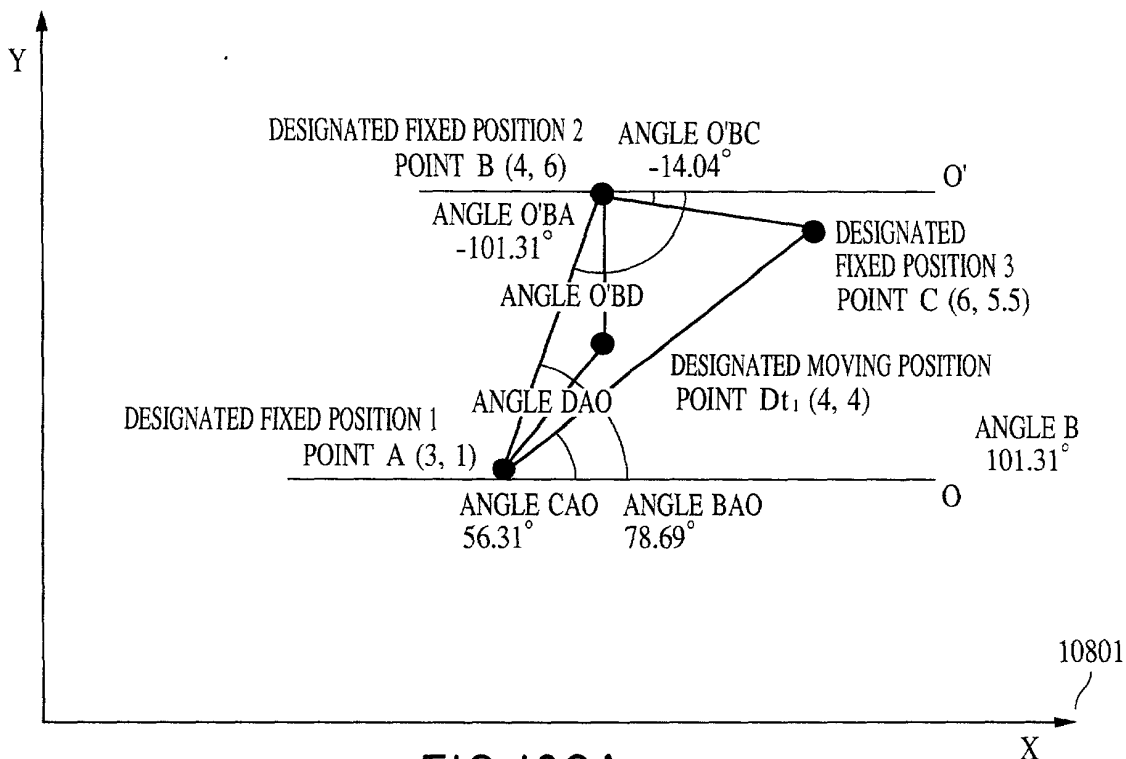


FIG. 108A

DESIGNATED FIXED  
POSITION  
POSITION DATA OF  
POINT A

	$A_x$	$A_y$
$t_1$	3.0	1.0

FIG. 108B

DESIGNATED FIXED  
POSITION  
POSITION DATA OF  
POINT B

	$B_x$	$B_y$
$t_1$	4.0	6.0

FIG. 108C

DESIGNATED FIXED  
POSITION  
POSITION DATA OF  
POINT C

	$C_x$	$C_y$
$t_1$	6.0	5.5

FIG. 108D

DESIGNATED  
MOVING POSITION  
POSITION DATA OF  
POINT D

	$D_x$	$D_y$
$t_1$	4.0	4.0

FIG. 108E

DATA OF CHANGE IN POSITIONAL RELATIONSHIP OF  
DESIGNATED FIXED POSITIONS

	ANGLE BAO	ANGLE CAO	ANGLE DAO	ANGLE O'BA	ANGLE O'BC	ANGLE O'BD
$t_1$	78.69	56.31	71.57	-101.31	-14.04	-90.00

FIG. 108F

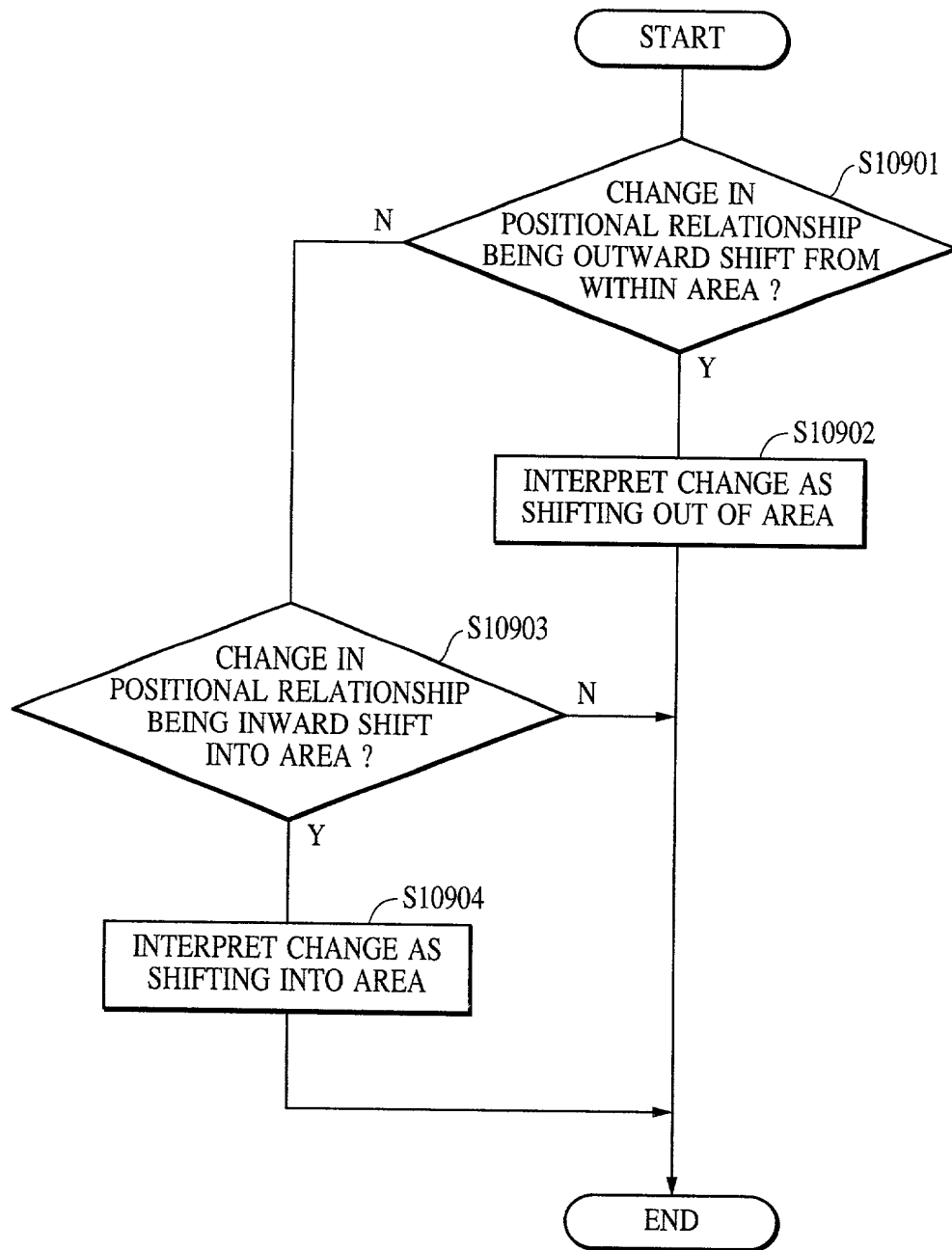


FIG. 109



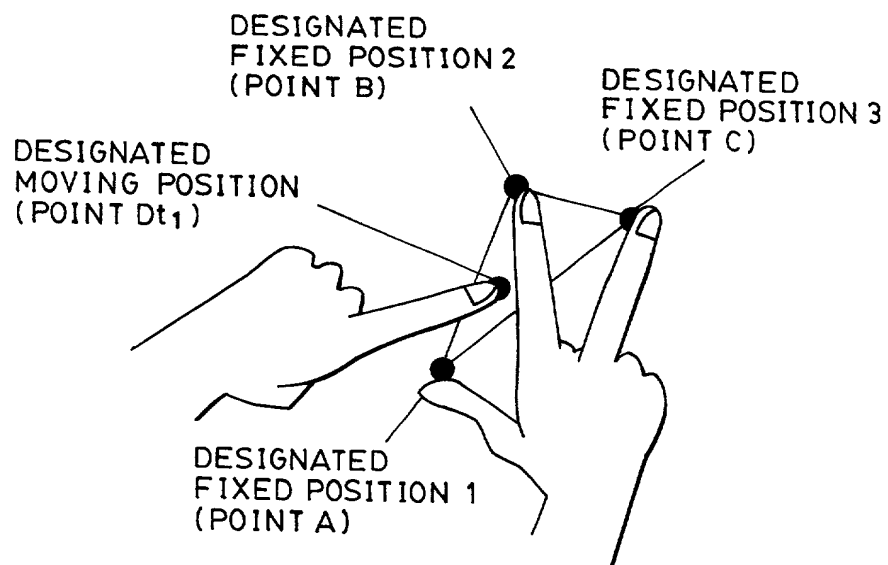


FIG. 110A

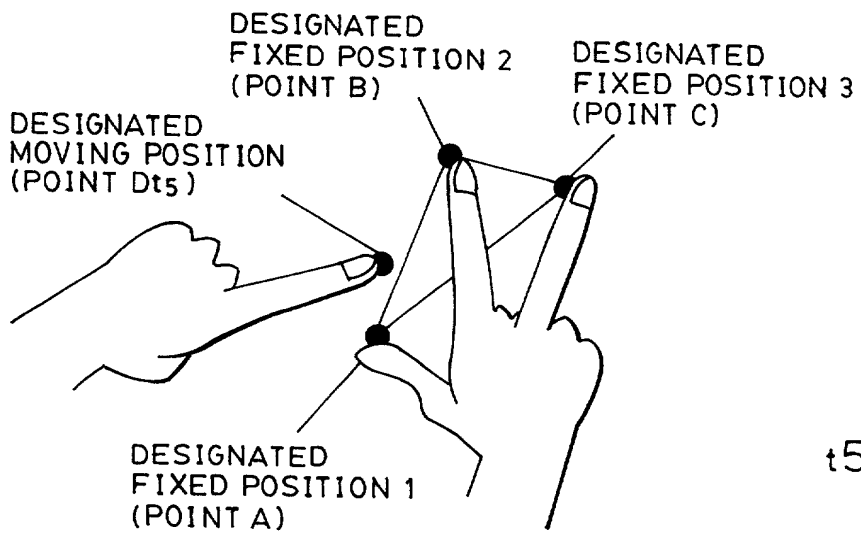


FIG. 110B

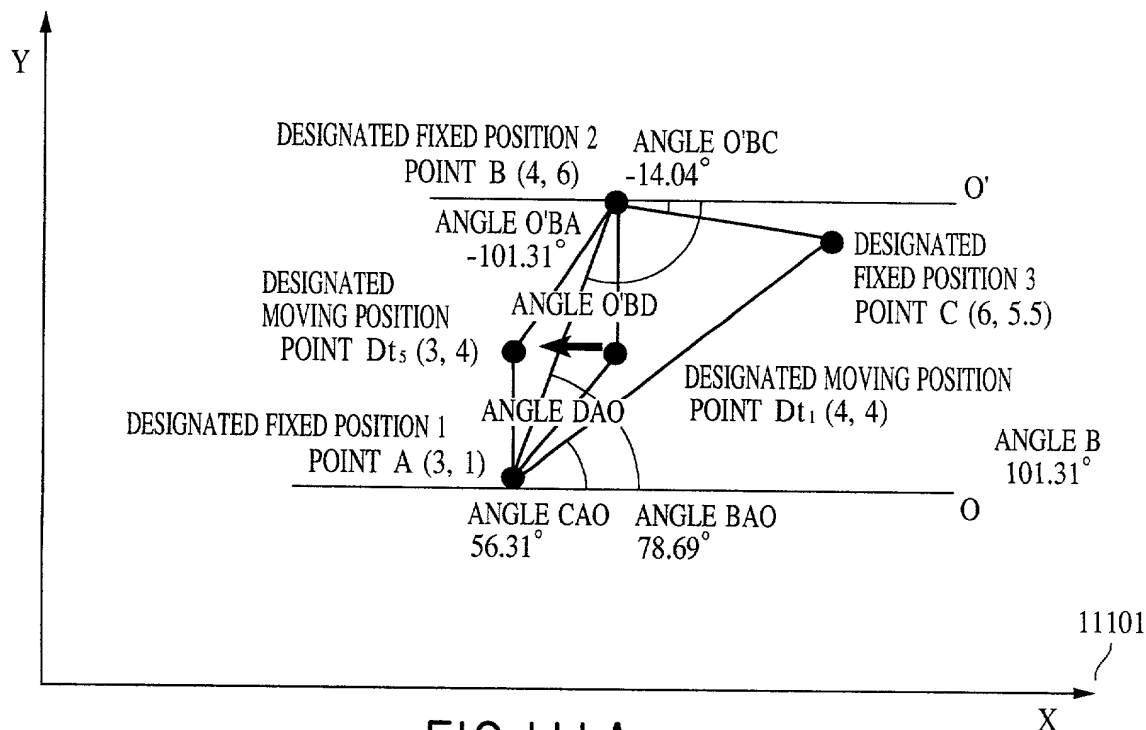


FIG. 111A

DESIGNATED FIXED  
POSITION  
POSITION DATA OF  
POINT A

	$A_x$	$A_y$
$t_1$	3.0	1.0
$t_2$	3.0	1.0
$t_3$	3.0	1.0
$t_4$	3.0	1.0
$t_5$	3.0	1.0

FIG. 111B

DESIGNATED FIXED  
POSITION  
POSITION DATA OF  
POINT B

	$B_x$	$B_y$
$t_1$	4.0	6.0
$t_2$	4.0	6.0
$t_3$	4.0	6.0
$t_4$	4.0	6.0
$t_5$	4.0	6.0

FIG. 111C

DESIGNATED FIXED  
POSITION  
POSITION DATA OF  
POINT C

	$C_x$	$C_y$
$t_1$	6.0	5.5
$t_2$	6.0	5.5
$t_3$	6.0	5.5
$t_4$	6.0	5.5
$t_5$	6.0	5.5

FIG. 111D

DESIGNATED  
MOVING POSITION  
POSITION DATA OF  
POINT D

	$D_x$	$D_y$
$t_1$	4.0	4.0
$t_2$	3.8	4.0
$t_3$	3.6	4.0
$t_4$	3.3	4.0
$t_5$	3.0	4.0

FIG. 111E

DATA OF CHANGE IN POSITIONAL RELATIONSHIP OF  
DESIGNATED FIXED POSITIONS

	ANGLE BAO	ANGLE CAO	ANGLE DAO	ANGLE O'BA	ANGLE O'BC	ANGLE O'BD
$t_1$	78.69	56.31	71.57	-101.31	-14.04	-90.00
$t_2$	78.69	56.31	57.07	-101.31	-14.04	-95.71
$t_3$	78.69	56.31	78.69	-101.31	-14.04	-101.31
$t_4$	78.69	56.31	84.29	-101.31	-14.04	-109.29
$t_5$	78.69	56.31	90.00	-101.31	-14.04	-116.57

FIG. 111F

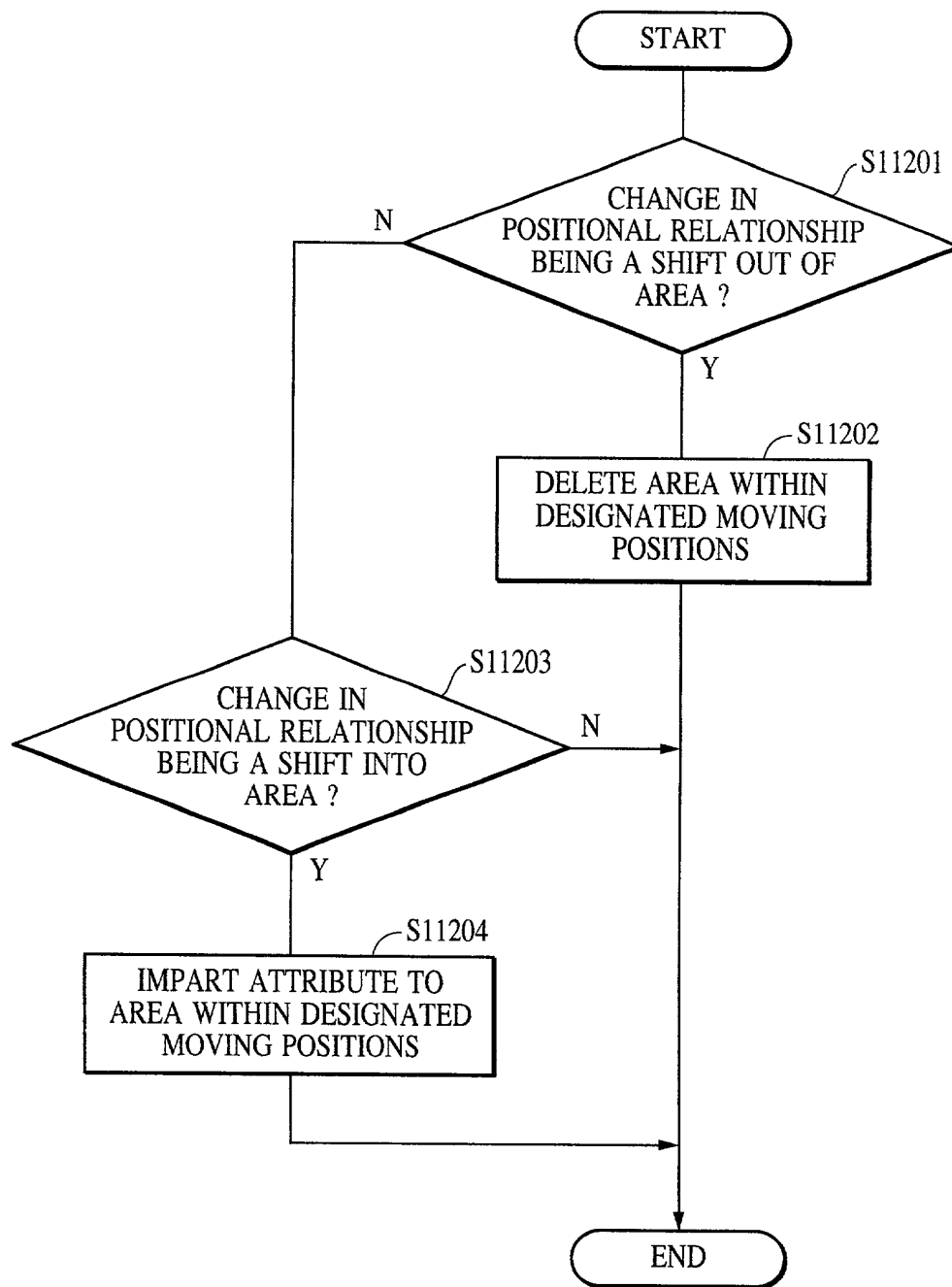


FIG. 112

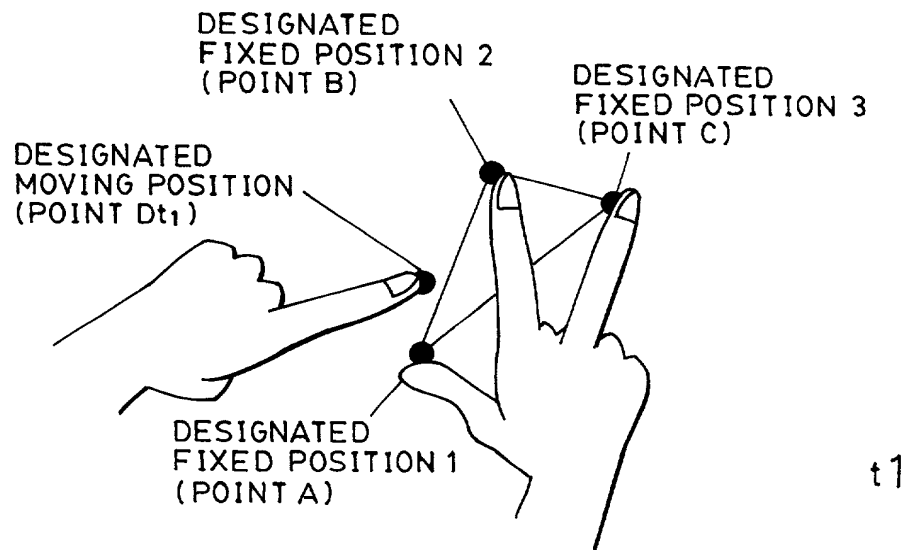


FIG. 113A

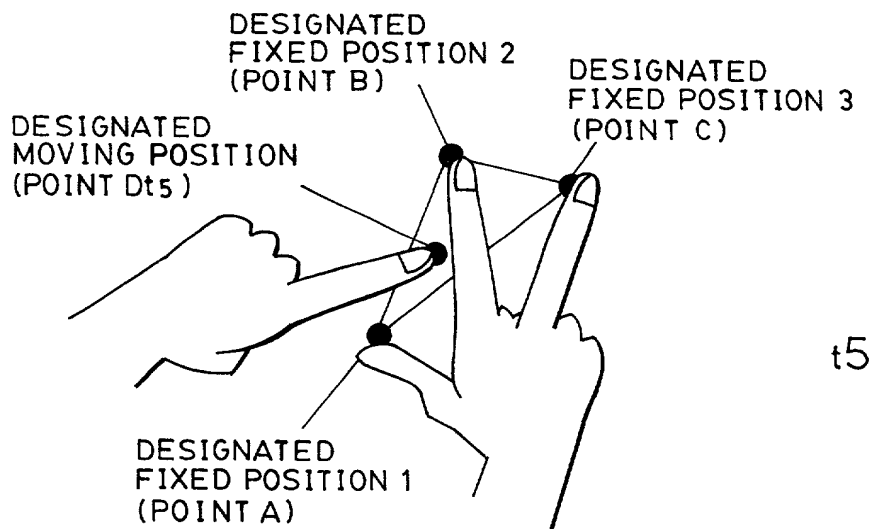


FIG. 113B

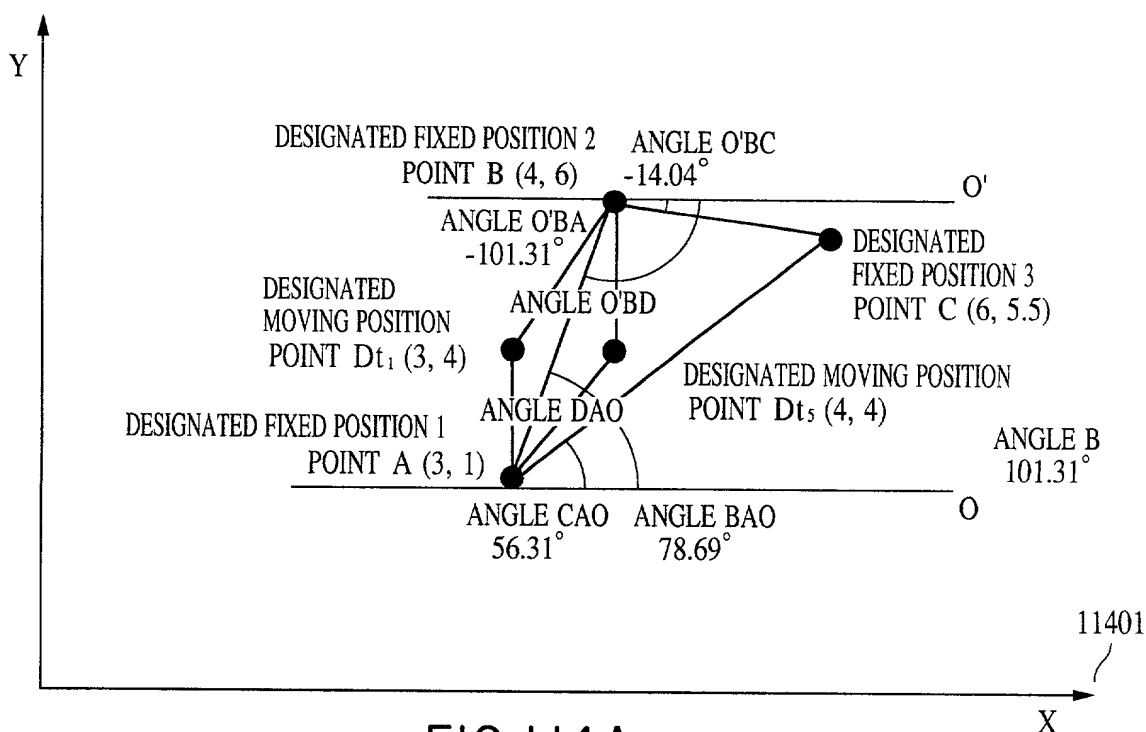


FIG. 114A

DESIGNATED FIXED  
POSITION  
POSITION DATA OF  
POINT A

	$A_x$	$A_y$
$t_1$	3.0	1.0
$t_2$	3.0	1.0
$t_3$	3.0	1.0
$t_4$	3.0	1.0
$t_5$	3.0	1.0

DESIGNATED FIXED  
POSITION  
POSITION DATA OF  
POINT B

	$B_x$	$B_y$
$t_1$	4.0	6.0
$t_2$	4.0	6.0
$t_3$	4.0	6.0
$t_4$	4.0	6.0
$t_5$	4.0	6.0

DESIGNATED FIXED  
POSITION  
POSITION DATA OF  
POINT C

	$C_x$	$C_y$
$t_1$	6.0	5.5
$t_2$	6.0	5.5
$t_3$	6.0	5.5
$t_4$	6.0	5.5
$t_5$	6.0	5.5

DESIGNATED  
MOVING POSITION  
POSITION DATA OF  
POINT D

	$D_x$	$D_y$
$t_1$	3.0	4.0
$t_2$	3.3	4.0
$t_3$	3.6	4.0
$t_4$	3.8	4.0
$t_5$	4.0	4.0

FIG. 114B

FIG. 114C

FIG. 114D

FIG. 114E

DATA OF CHANGE IN POSITIONAL RELATIONSHIP

	ANGLE BAO	ANGLE CAO	ANGLE DAO	ANGLE O'BA	ANGLE O'BC	ANGLE O'BD
$t_1$	78.69	56.31	90.00	-101.31	-14.04	-116.57
$t_2$	78.69	56.31	84.29	-101.31	-14.04	-109.29
$t_3$	78.69	56.31	78.69	-101.31	-14.04	-101.31
$t_4$	78.69	56.31	75.07	-101.31	-14.04	-95.71
$t_5$	78.69	56.31	71.57	-101.31	-14.04	-90.00

FIG. 114F

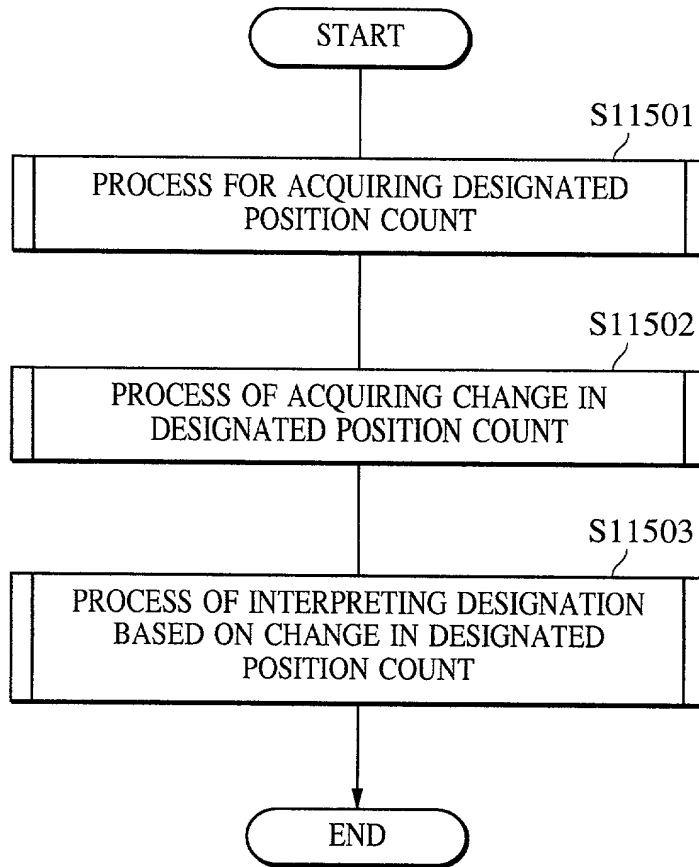


FIG. 115

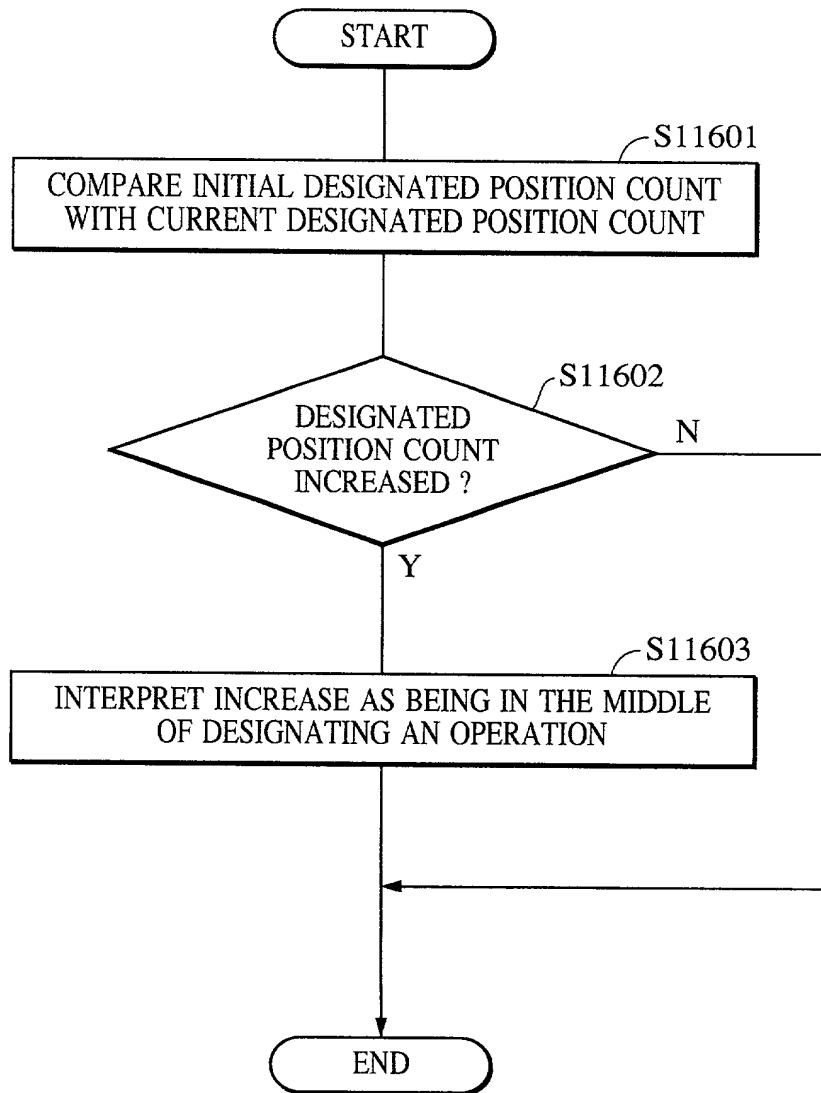


FIG. 116

TIME  $t_1$

INITIAL  
DESIGNATED  
POSITION  
POINT  $At_1$

INITIAL  
DESIGNATED  
POSITION  
POINT  $Bt_1$

In a system for preparing a text by using a knowledge base, knowledge relating to input information is first retrieved from the knowledge base. Then, a plurality of kinds of information used as elements of text to be generated is selected from the input information and the retrieved information relating to the selected elements. Subsequently, a describing order, in which the selected elements of the text are described, is determined. Then, a text to be output is generated from the selected elements in the describing order.

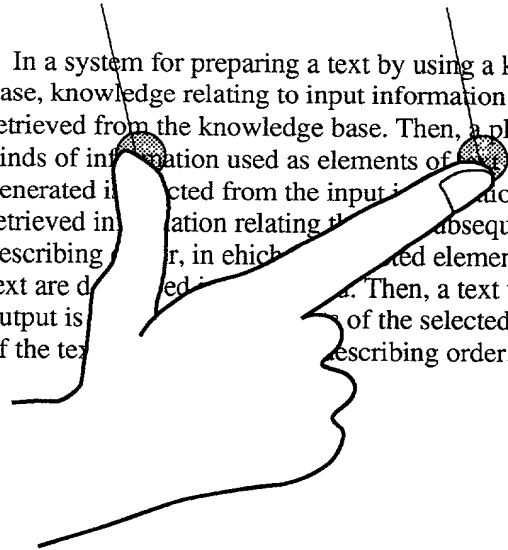


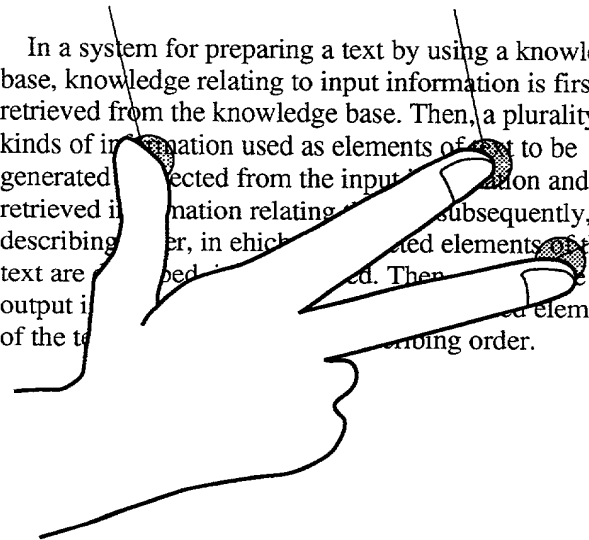
FIG. 117A

TIME  $t_2$

DESIGNATED  
POSITION  
POINT  $At_2$

DESIGNATED  
POSITION  
POINT  $Bt_2$

In a system for preparing a text by using a knowledge base, knowledge relating to input information is first retrieved from the knowledge base. Then, a plurality of kinds of information used as elements of text to be generated is selected from the input information and the retrieved information relating to the selected elements. Subsequently, a describing order, in which the selected elements of the text are described, is determined. Then, a text to be output is generated from the selected elements in the describing order.



DESIGNATED  
POSITION  
POINT  $Ct_2$

FIG. 117B



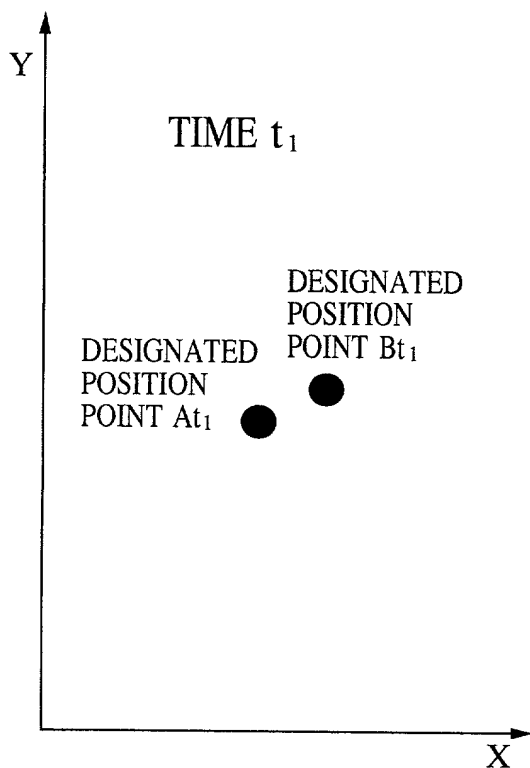


FIG. 118A

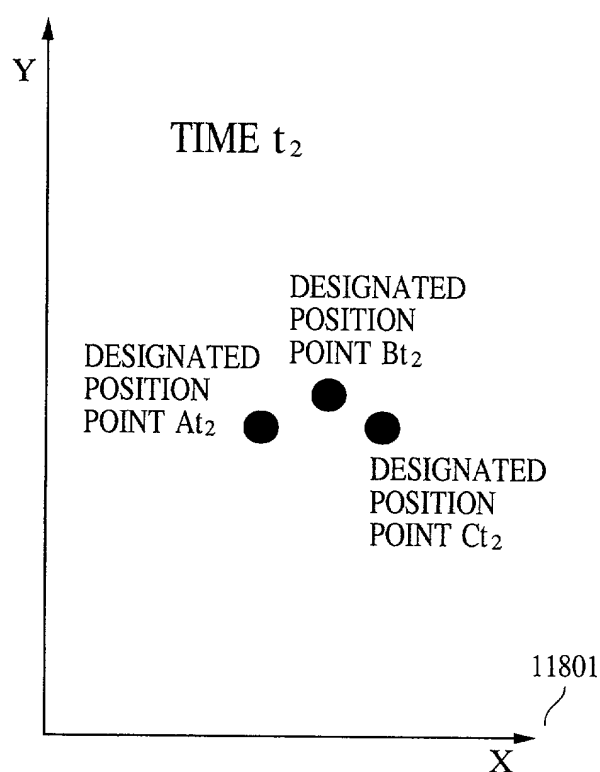


FIG. 118B

DESIGNATED  
FIXED POSITION  
POSITION DATA  
OF POINT A

	A <sub>X</sub>	A <sub>Y</sub>
t <sub>1</sub>	3.0	3.0
t <sub>2</sub>	3.0	3.0
t <sub>3</sub>	3.0	3.0

FIG. 118C

DESIGNATED  
FIXED POSITION  
POSITION DATA  
OF POINT B

	B <sub>X</sub>	B <sub>Y</sub>
t <sub>1</sub>	4.0	4.0
t <sub>2</sub>	4.0	4.0
t <sub>3</sub>	4.0	4.0

FIG. 118D

DESIGNATED  
FIXED POSITION  
POSITION DATA  
OF POINT C

	C <sub>X</sub>	C <sub>Y</sub>
t <sub>1</sub>		
t <sub>2</sub>	5.0	3.0
t <sub>3</sub>	5.0	3.0

FIG. 118E

DATA OF DESIGNATED POSITION COUNT

	DESIGNATED POSITION COUNT	CHANGE IN INITIAL DESIGNATED POSITION COUNT
t <sub>1</sub>	2	0
t <sub>2</sub>	3	1
t <sub>3</sub>	3	1

FIG. 118F

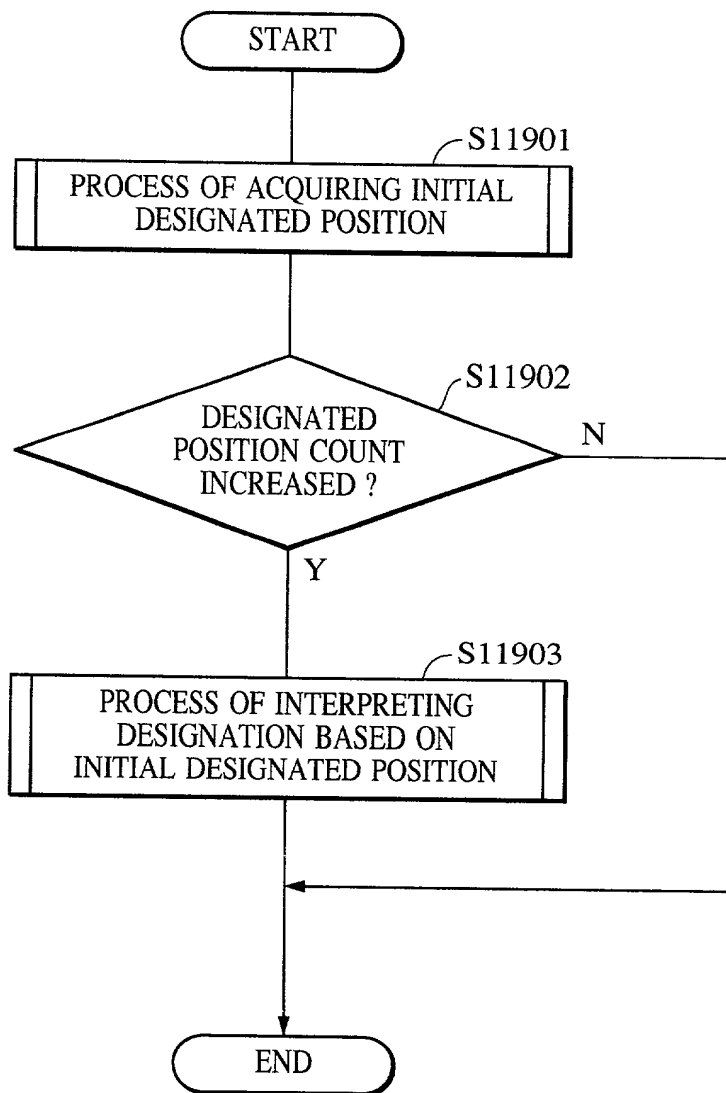


FIG. 119

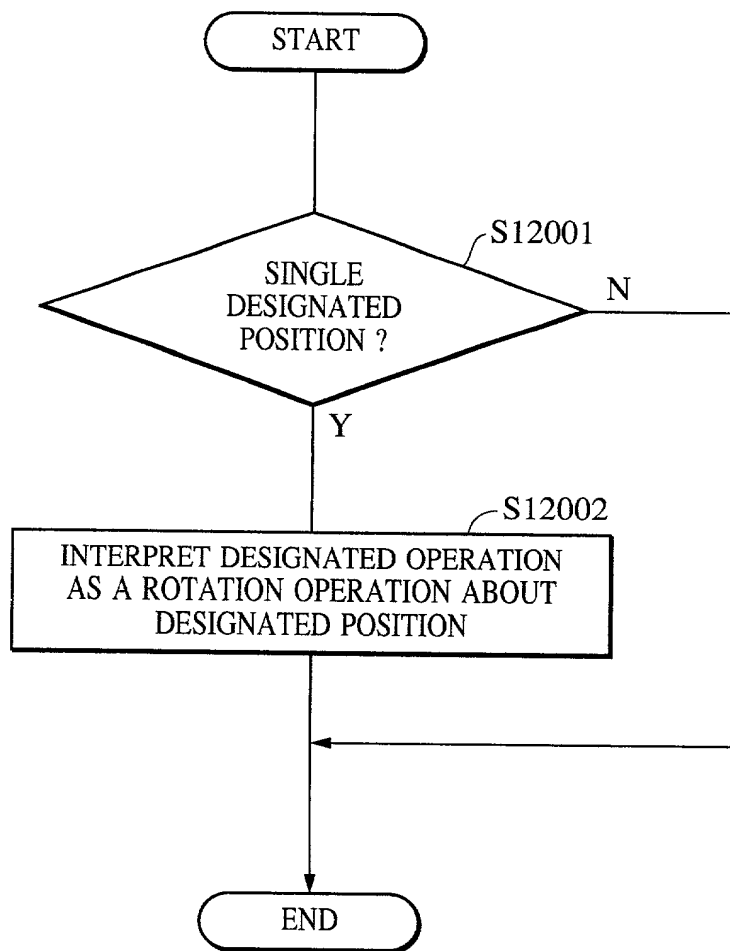


FIG. 120

TIME  $t_1$

INITIAL  
DESIGNATED  
POSITION  
POINT A(3,3)

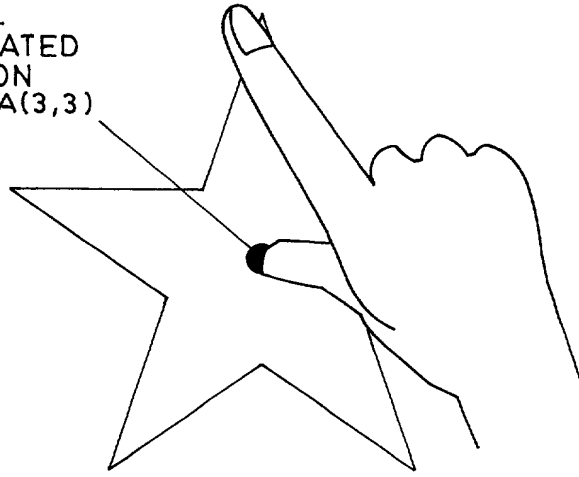


FIG. 121A

TIME  $t_5$

DESIGNATED  
POSITION  
POINT B $t_3$

DESIGNATED  
POSITION  
POINT B $t_5$

DESIGNATED  
POSITION  
POINT A(3,3)

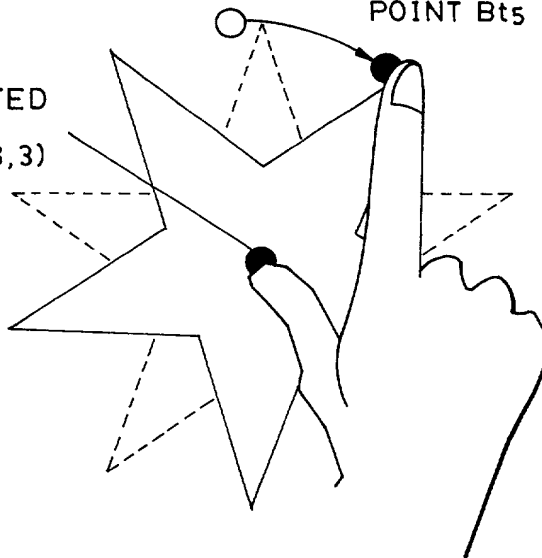


FIG. 121B

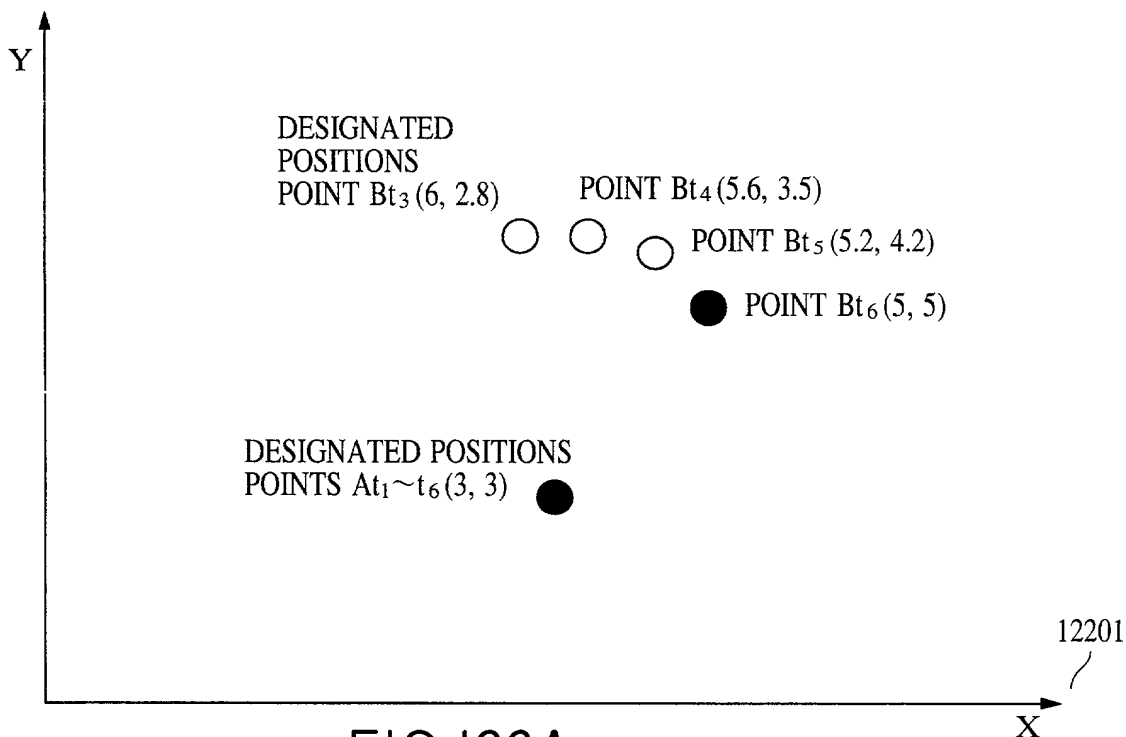


FIG. 122A

DESIGNATED POSITION  
POSITION DATA OF POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	3.0	3.0
t <sub>2</sub>	3.0	3.0
t <sub>3</sub>	3.0	3.0
t <sub>4</sub>	3.0	3.0
t <sub>5</sub>	3.0	3.0
t <sub>6</sub>	3.0	3.0

FIG. 122B

DESIGNATED POSITION  
POSITION DATA OF POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>		
t <sub>2</sub>		
t <sub>3</sub>	6.0	2.8
t <sub>4</sub>	5.6	3.5
t <sub>5</sub>	5.2	4.2
t <sub>6</sub>	5.0	5.0

FIG. 122C

DATA OF DESIGNATED POSITION COUNT

	DESIGNATED POSITION COUNT	CHANGE IN INITIAL DESIGNATED POSITION COUNT
t <sub>1</sub>	1	0
t <sub>2</sub>	1	0
t <sub>3</sub>	2	1
t <sub>4</sub>	2	1
t <sub>5</sub>	2	1
t <sub>6</sub>	2	1

FIG. 122D

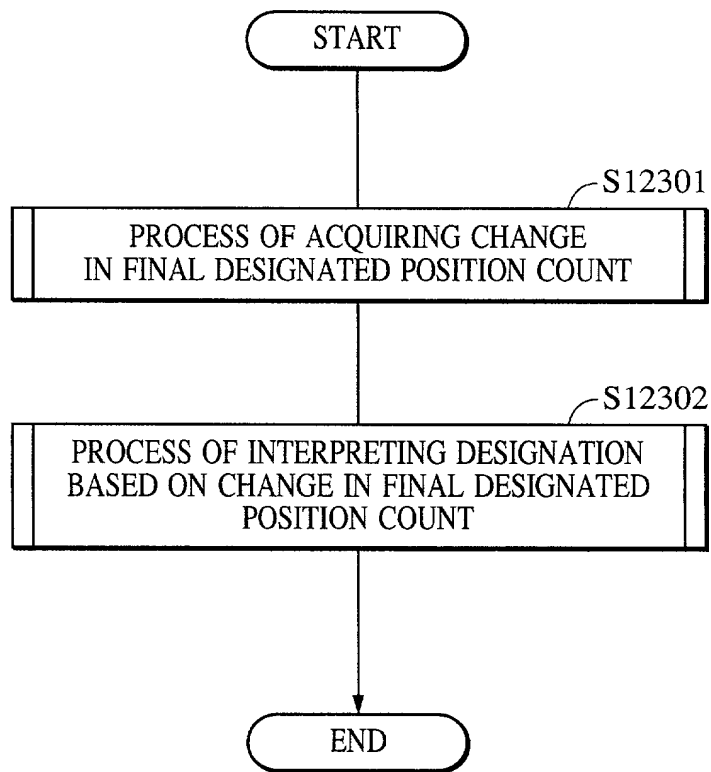


FIG. 123

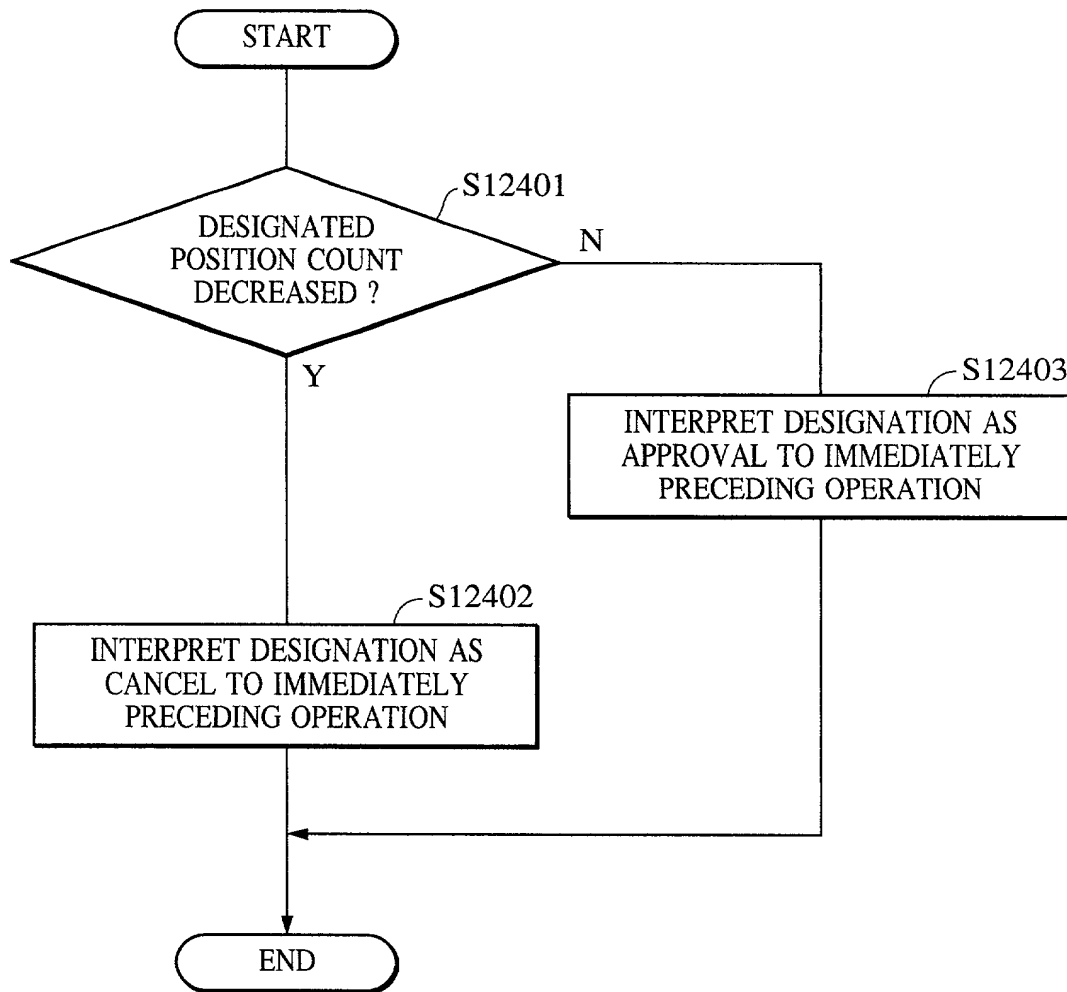


FIG. 124

TIME  $t_1$

DESIGNATED  
POSITION  
POINT  $At_1$

DESIGNATED  
POSITION  
POINT  $Bt_1$

In a system for preparing a text by using a knowledge base, knowledge relating to input information is first retrieved from the knowledge base. Then, a plurality of kinds of information used as elements of text to be generated is selected from the input information and the retrieved information relating to the input information. Subsequently, a describing order, in which the selected elements of the text are described, is determined. Then, a text to be output is generated from the selected elements of the text in the describing order.

DESIGNATED  
POSITION  
POINT  $Ct_1$

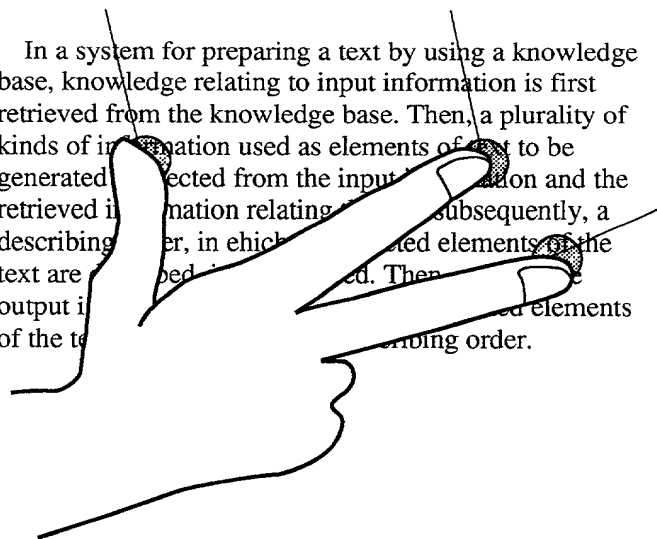


FIG. 125A

TIME  $t_2$

DESIGNATED  
POSITION  
POINT  $At_2$

DESIGNATED  
POSITION  
POINT  $Bt_2$

In a system for preparing a text by using a knowledge base, knowledge relating to input information is first retrieved from the knowledge base. Then, a plurality of kinds of information used as elements of text to be generated is selected from the input information and the retrieved information relating to the input information. Subsequently, a describing order, in which the selected elements of the text are described, is determined. Then, a text to be output is generated from the selected elements of the text in the describing order.

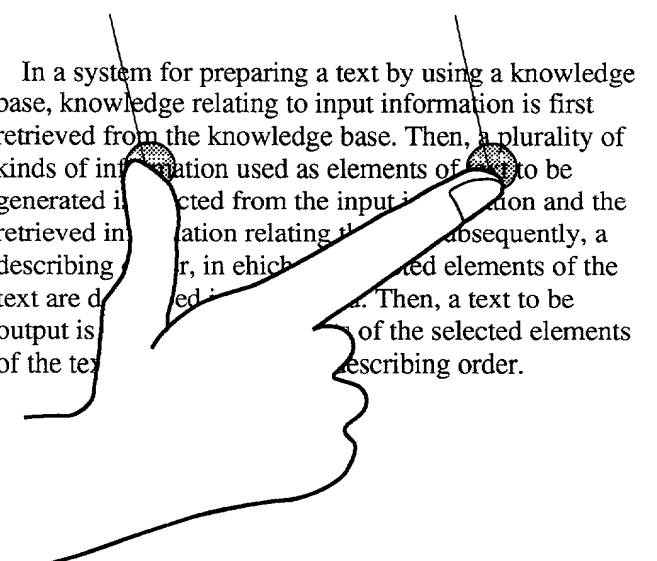


FIG. 125B



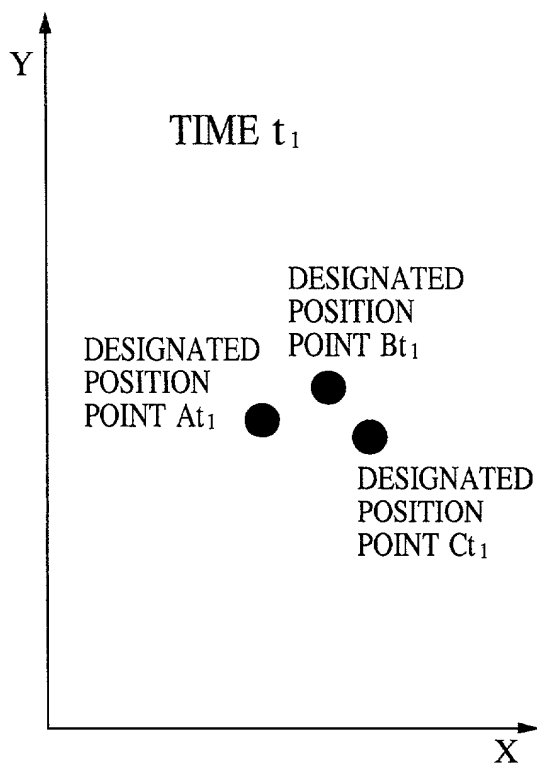


FIG. 126A

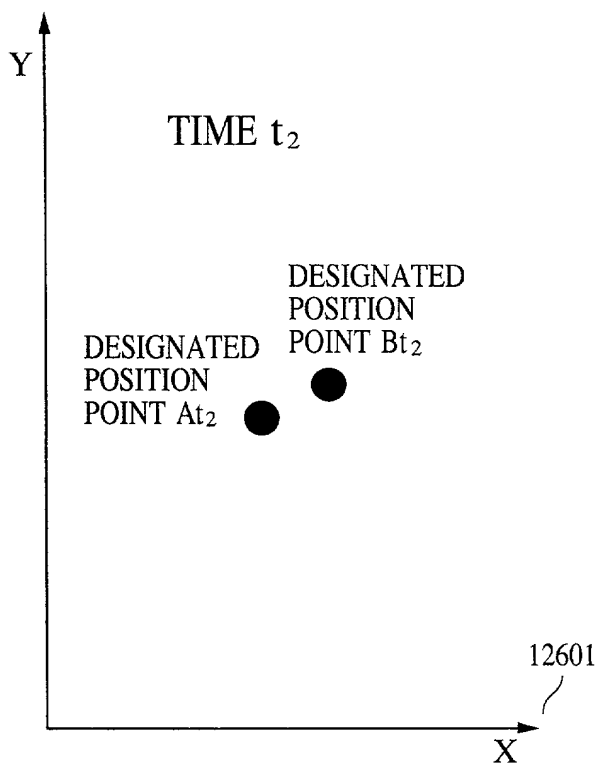


FIG. 126B

DESIGNATED POSITION  
POSITION DATA OF  
POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	3.0	3.0
t <sub>2</sub>	3.0	3.0

FIG. 126C

DESIGNATED POSITION  
POSITION DATA OF  
POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>	4.0	4.0
t <sub>2</sub>	4.0	4.0

FIG. 126D

DESIGNATED POSITION  
POSITION DATA OF  
POINT C

	C <sub>x</sub>	C <sub>y</sub>
t <sub>1</sub>	5.0	3.0
t <sub>2</sub>		

FIG. 126E

DATA OF DESIGNATED POSITION COUNT

	DESIGNATED POSITION COUNT	CHANGE IN INITIAL DESIGNATED POSITION COUNT
t <sub>1</sub>	3	0
t <sub>2</sub>	2	-1

FIG. 126F

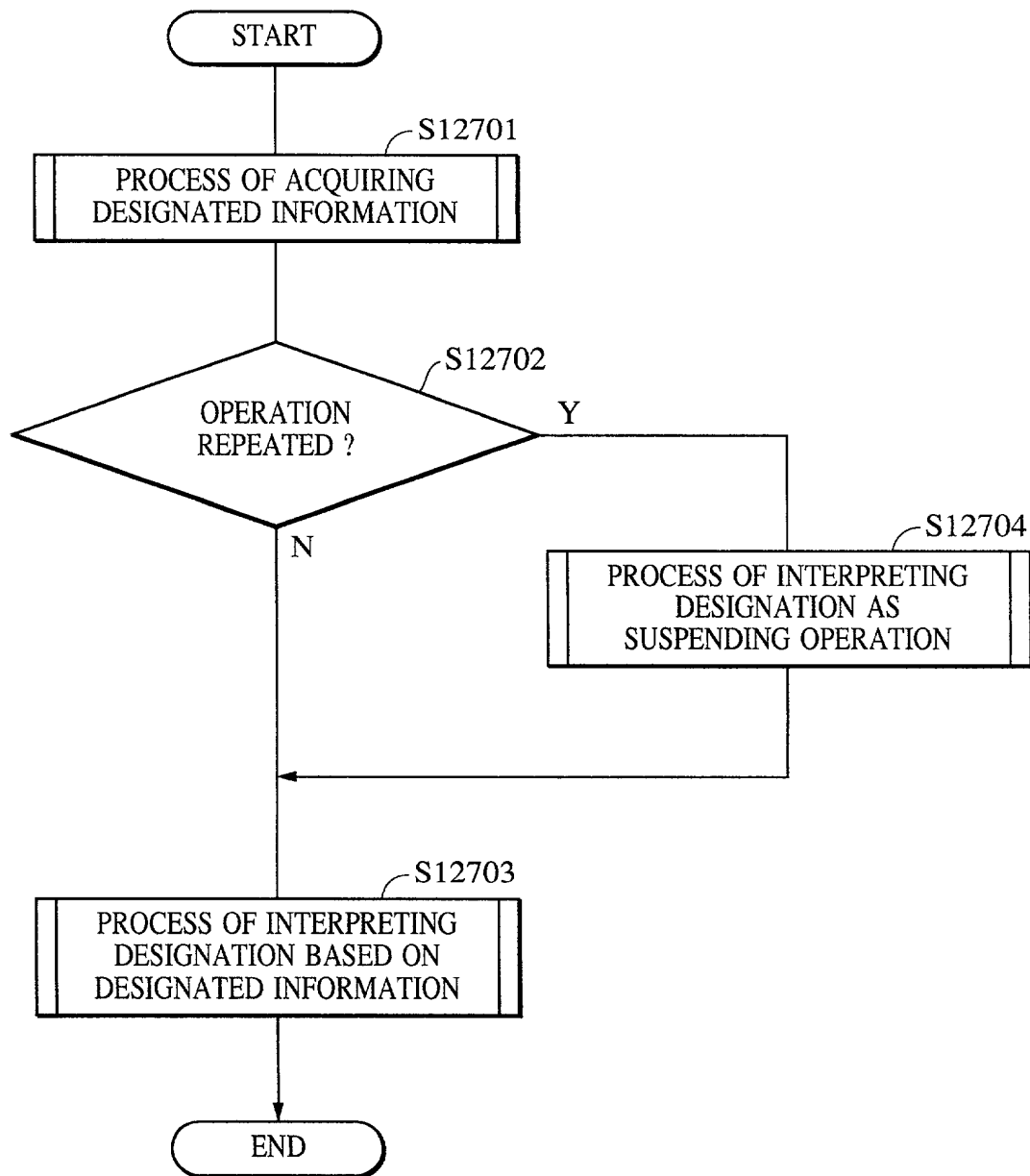


FIG. 127

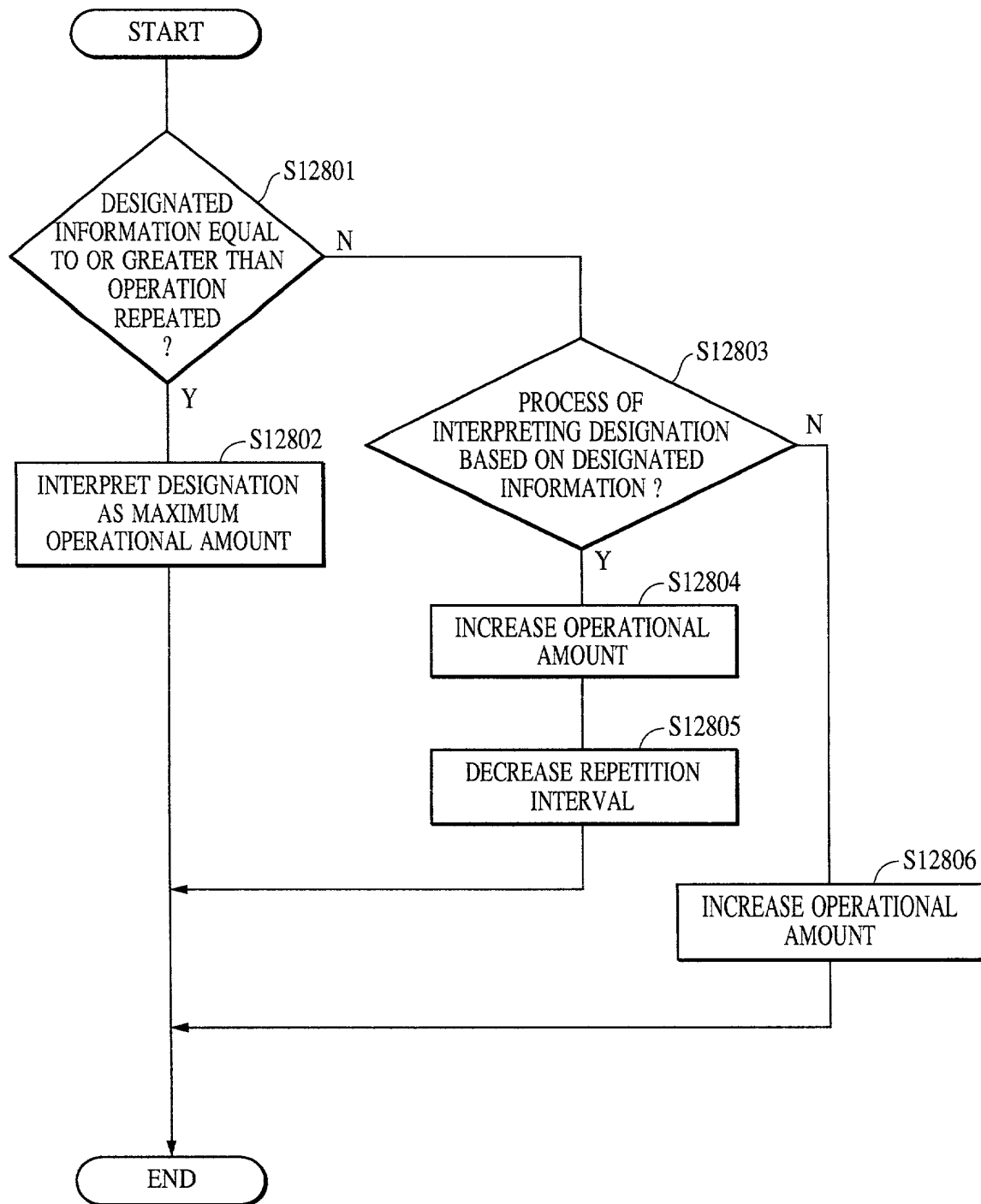


FIG. 128

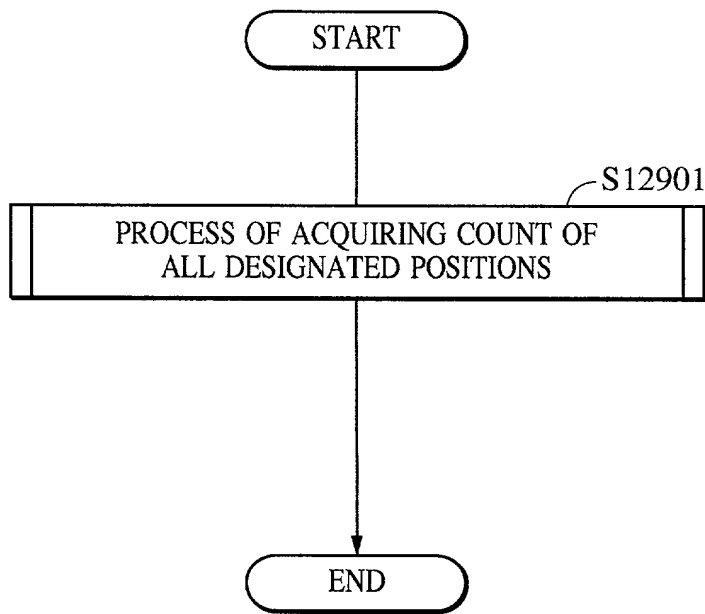


FIG. 129

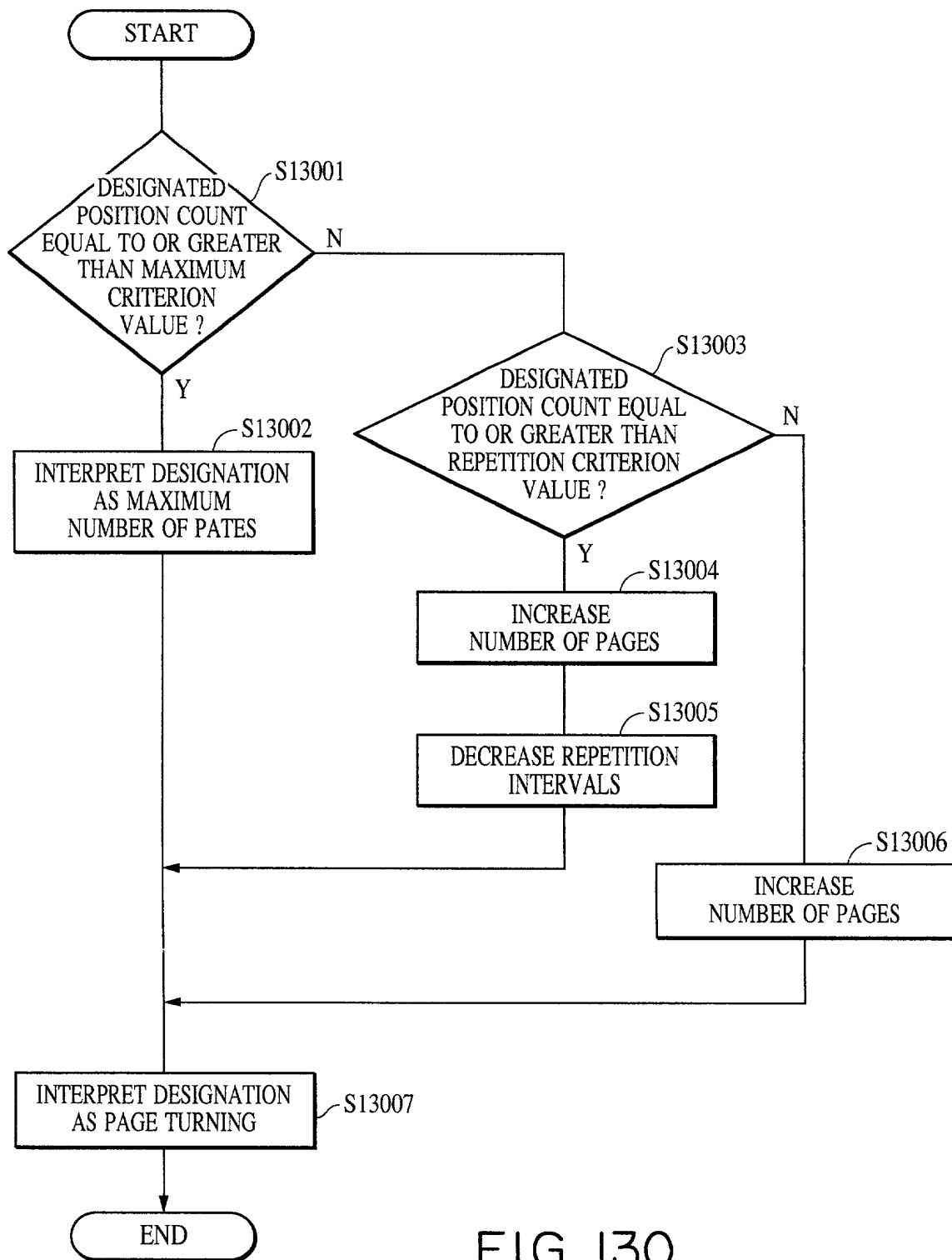


FIG. 130

PAGE TURNING

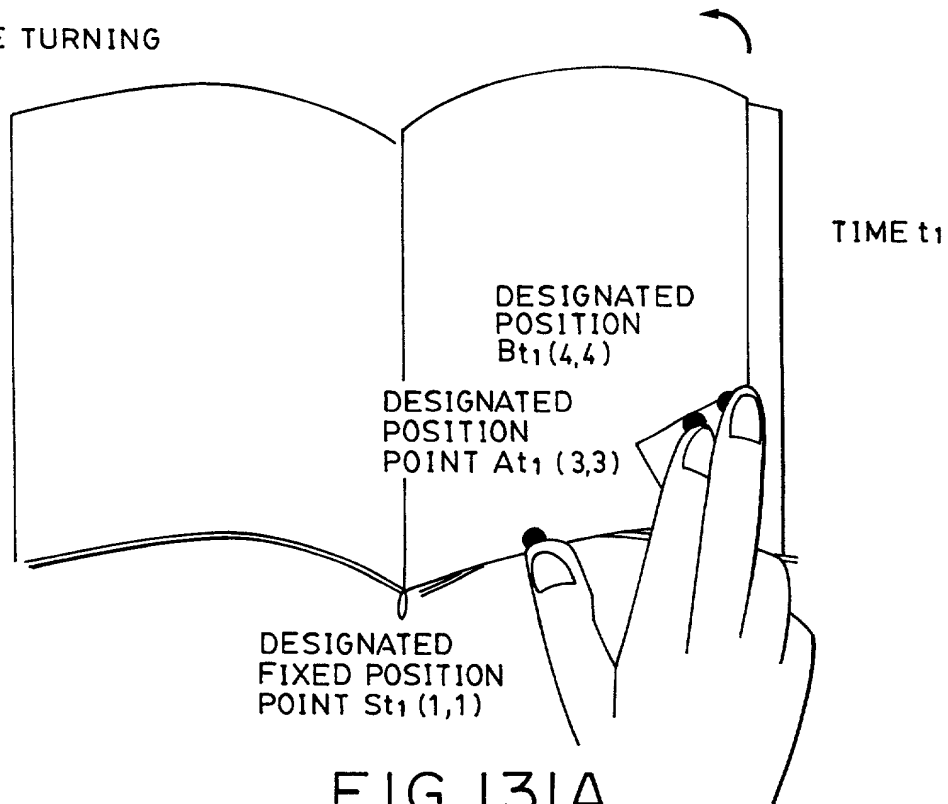


FIG. 131A

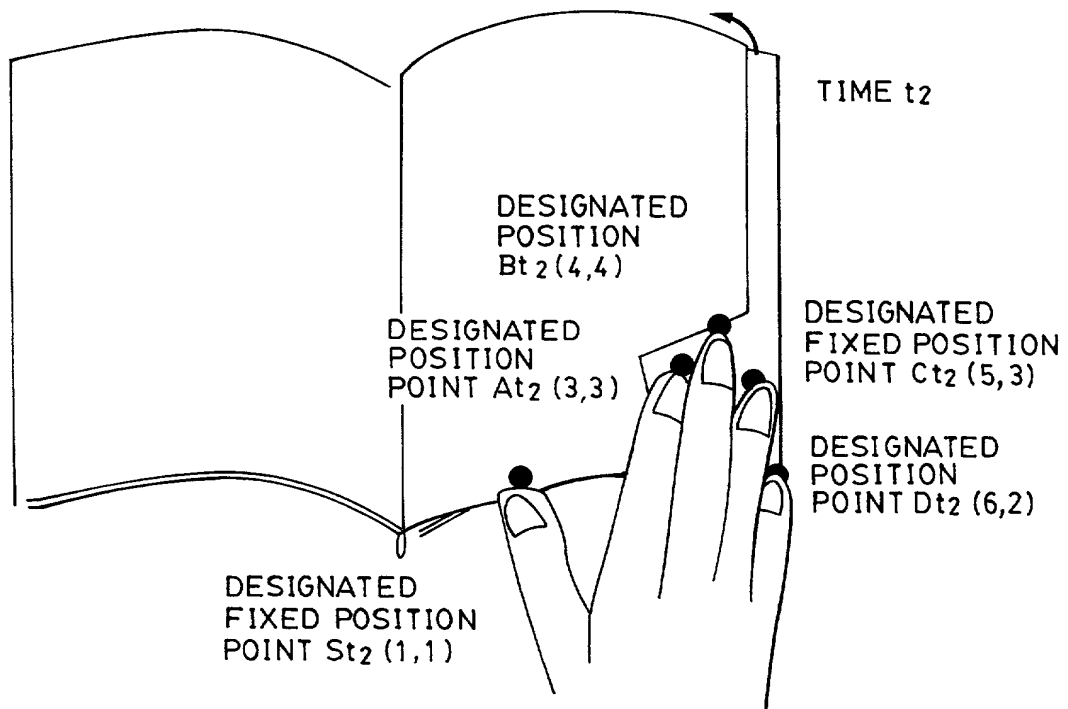


FIG. 131B

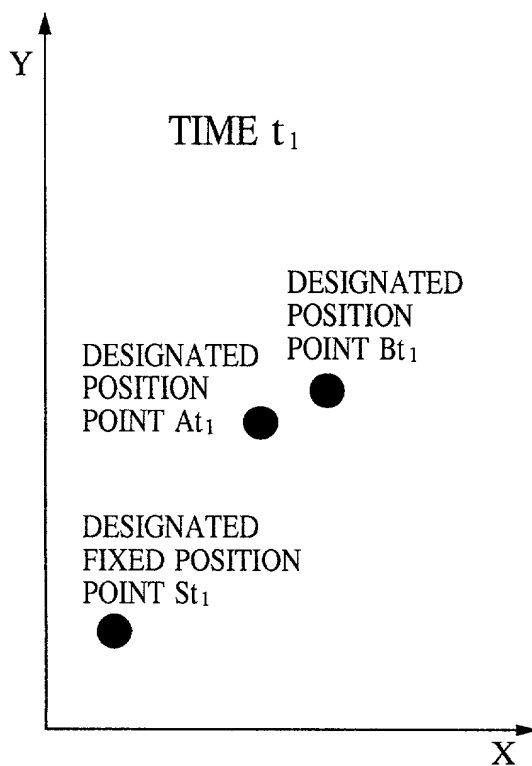


FIG. 132A

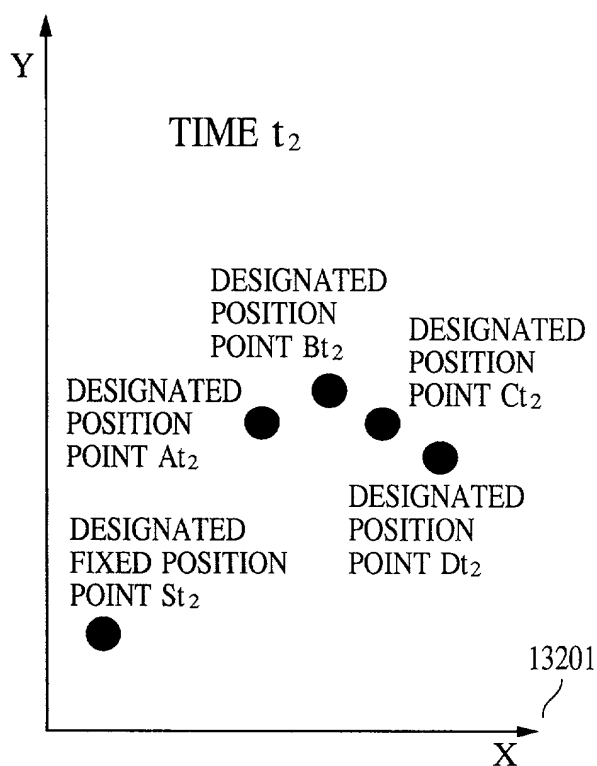


FIG. 132B

DESIGNATED  
FIXED POSITION  
POSITION DATA  
OF POINT S

	$S_x$	$S_y$
$t_1$	1.0	1.0
$t_2$	1.0	1.0

FIG. 132C

DESIGNATED  
POSITION  
POSITION DATA  
OF POINT A

	$A_x$	$A_y$
$t_1$	3.0	3.0
$t_2$	3.0	3.0

FIG. 132D

DESIGNATED  
POSITION  
POSITION DATA  
OF POINT B

	$B_x$	$B_y$
$t_1$	4.0	4.0
$t_2$	4.0	4.0

FIG. 132E

DESIGNATED  
POSITION  
POSITION DATA  
OF POINT C

	$C_x$	$C_y$
$t_1$		
$t_2$	5.0	3.0

FIG. 132F

DESIGNATED  
POSITION  
POSITION DATA  
OF POINT D

	$D_x$	$D_y$
$t_1$		
$t_2$	6.0	2.0

FIG. 132G

DATA OF DESIGNATED POSITION COUNT

	INCREASE IN NUMBER	TOTAL NUMBER
$t_1$	2	3
$t_2$	2	5

FIG. 132H

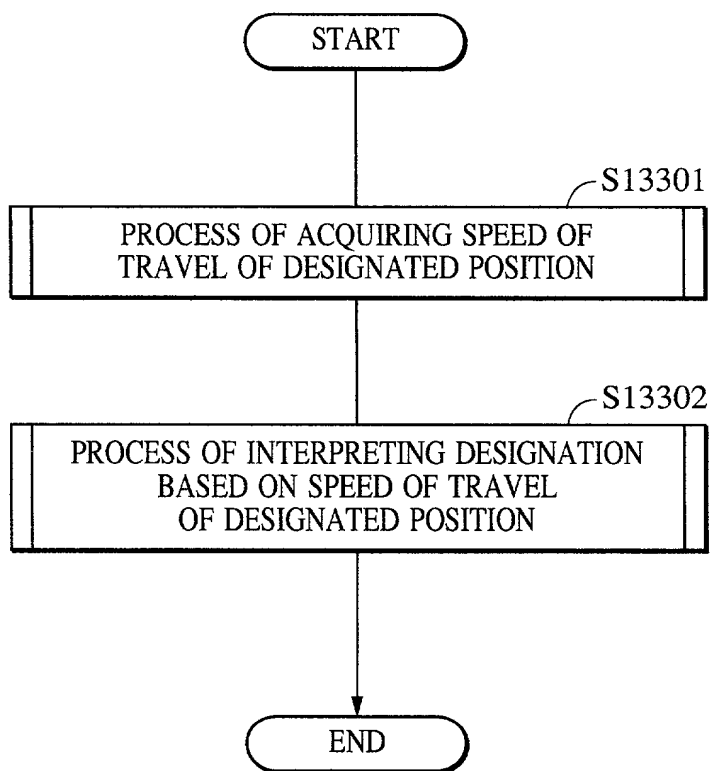


FIG. 133



FIG. 134

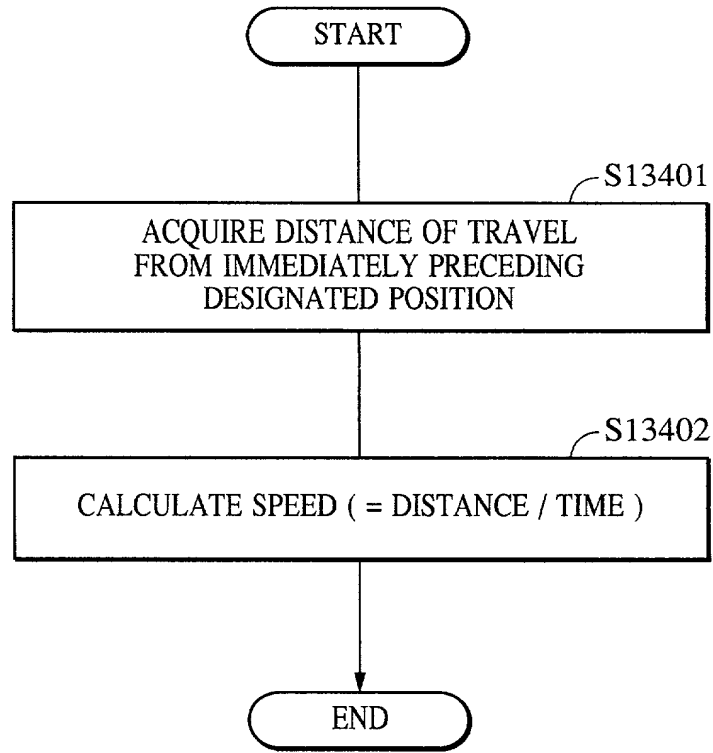


FIG. 134

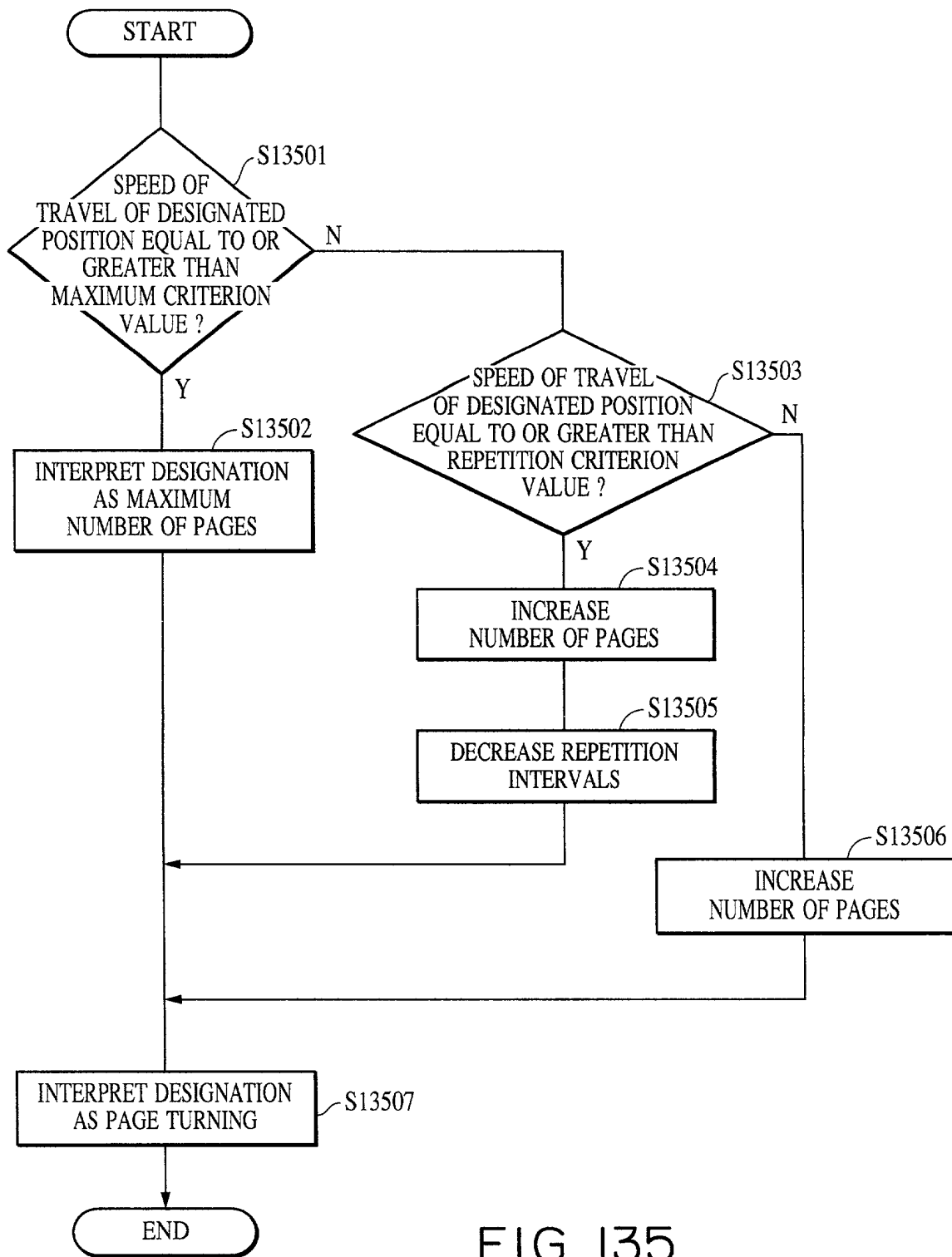
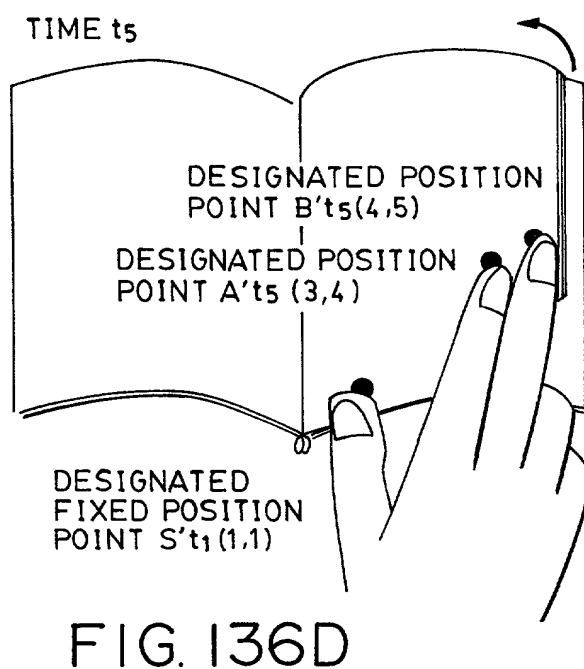
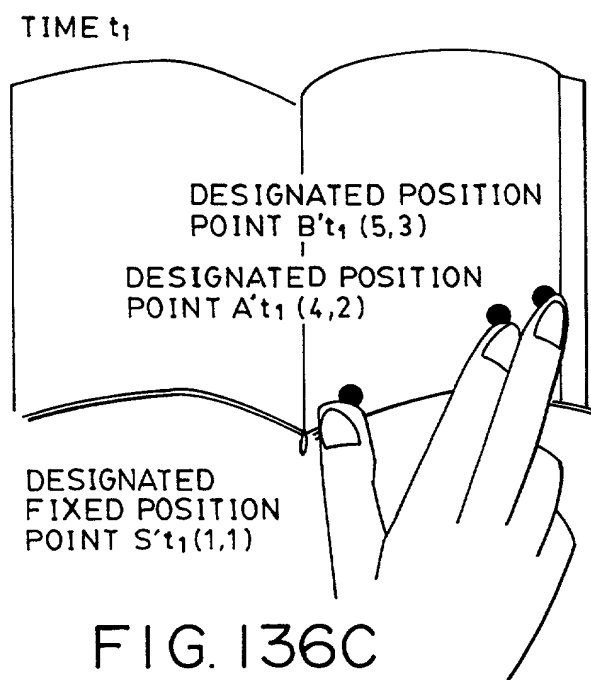
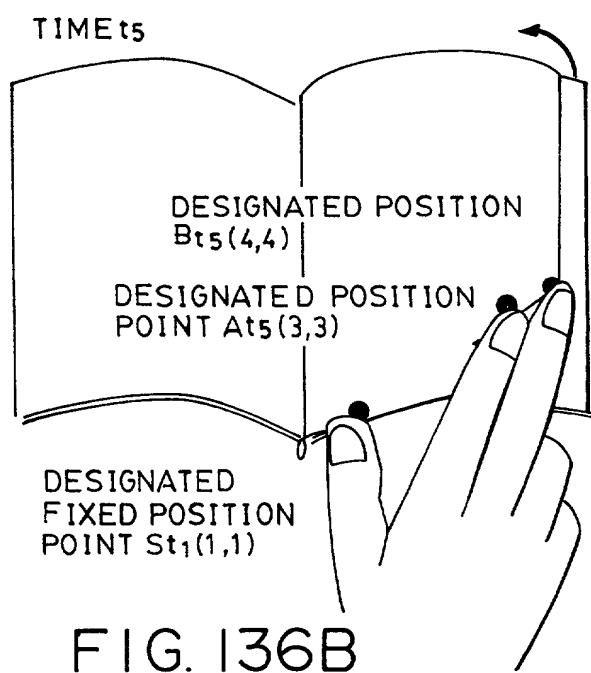
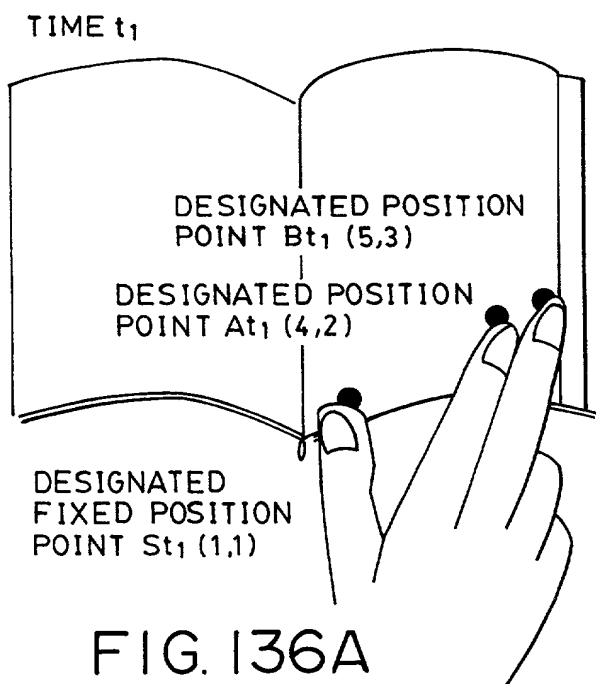


FIG. 135

# PAGE TURNING



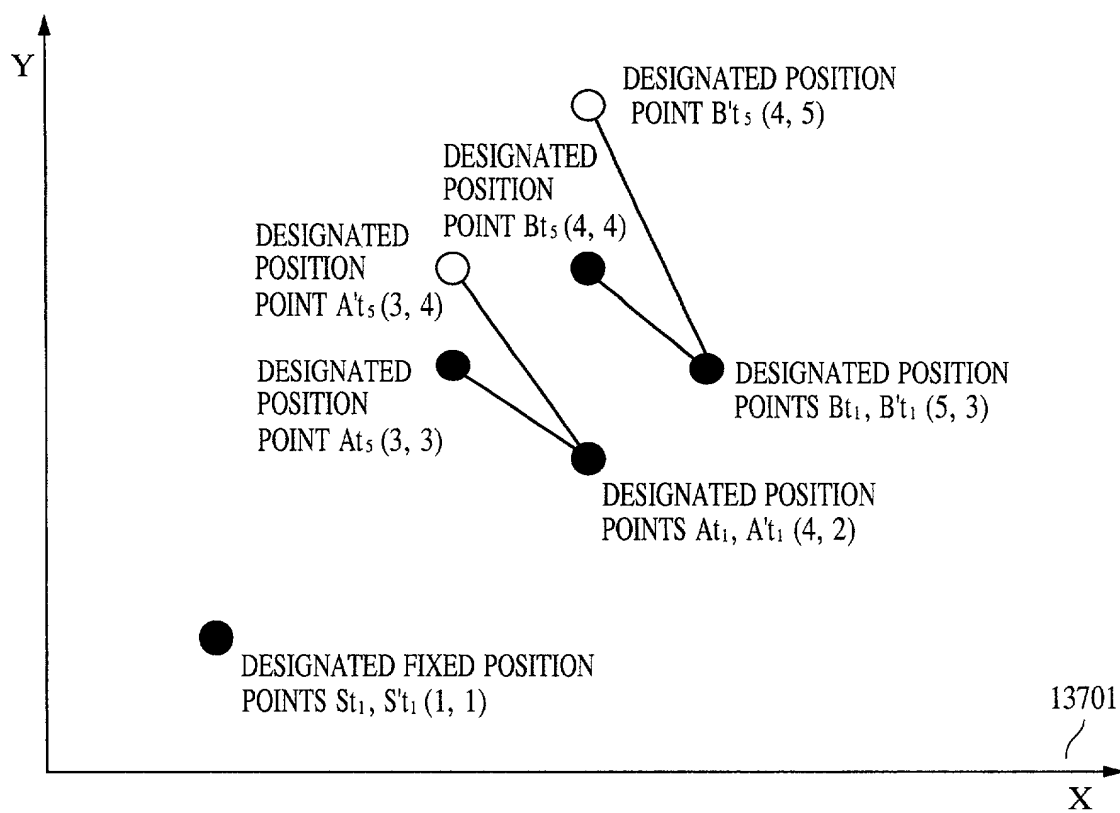


FIG. 137A

DESIGNATED FIXED POSITION POSITION DATA OF POINT S		
S <sub>x</sub>	S <sub>y</sub>	
t <sub>1</sub>	1.0	1.0
t <sub>2</sub>	1.0	1.0
t <sub>3</sub>	1.0	1.0
t <sub>4</sub>	1.0	1.0
t <sub>5</sub>	1.0	1.0

DESIGNATED POSITION POSITION DATA OF POINT A		
A <sub>x</sub>	A <sub>y</sub>	
t <sub>1</sub>	4.0	2.0
t <sub>2</sub>	3.8	2.2
t <sub>3</sub>	3.6	2.4
t <sub>4</sub>	3.4	2.6
t <sub>5</sub>	3.0	3.0

DESIGNATED POSITION POSITION DATA OF POINT B		
B <sub>x</sub>	B <sub>y</sub>	
t <sub>1</sub>	5.0	3.0
t <sub>2</sub>	4.8	3.2
t <sub>3</sub>	4.6	3.4
t <sub>4</sub>	4.4	3.6
t <sub>5</sub>	4.0	4.0

DESIGNATED POSITION POSITION DATA OF POINT A'		
A' <sub>x</sub>	A' <sub>y</sub>	
t <sub>1</sub>	4.0	2.0
t <sub>2</sub>	3.8	2.4
t <sub>3</sub>	3.6	2.8
t <sub>4</sub>	3.4	3.2
t <sub>5</sub>	3.0	4.0

DESIGNATED POSITION POSITION DATA OF POINT B'		
B' <sub>x</sub>	B' <sub>y</sub>	
t <sub>1</sub>	5.0	3.0
t <sub>2</sub>	4.8	3.4
t <sub>3</sub>	4.6	3.8
t <sub>4</sub>	4.4	4.2
t <sub>5</sub>	4.0	5.0

FIG. 137B FIG. 137C FIG. 137D FIG. 137E FIG. 137F

DATA OF SPEED OF TRAVEL OF DESIGNATED POSITION

	SPEED OF POINT A	RATE OF INCREASE OF SPEED OF POINT A	SPEED OF POINT B	RATE OF INCREASE OF SPEED OF POINT B	SPEED OF POINT A'	RATE OF INCREASE OF SPEED OF POINT A'	SPEED OF POINT B'	RATE OF INCREASE OF SPEED OF POINT B'
t <sub>1</sub>	0.000		0.000	0.0	0.000		0.000	
t <sub>2</sub>	0.283		0.283		0.447		0.447	
t <sub>3</sub>	0.283	1.00	0.283	1.00	0.447	1.00	0.447	1.00
t <sub>4</sub>	0.283	1.00	0.283	1.00	0.447	1.00	0.447	1.00
t <sub>5</sub>	0.354	1.25	0.283	1.00	0.559	1.25	0.559	1.25

FIG. 137G

START

S13801  
PROCESS OF ACQUIRING CONTACT  
PRESSURE AT DESIGNATED POSITION

S13802  
INTERPRETING DESIGNATION BASED ON  
CONTACT PRESSURE AT DESIGNATED  
POSITION

END

FIG. 138

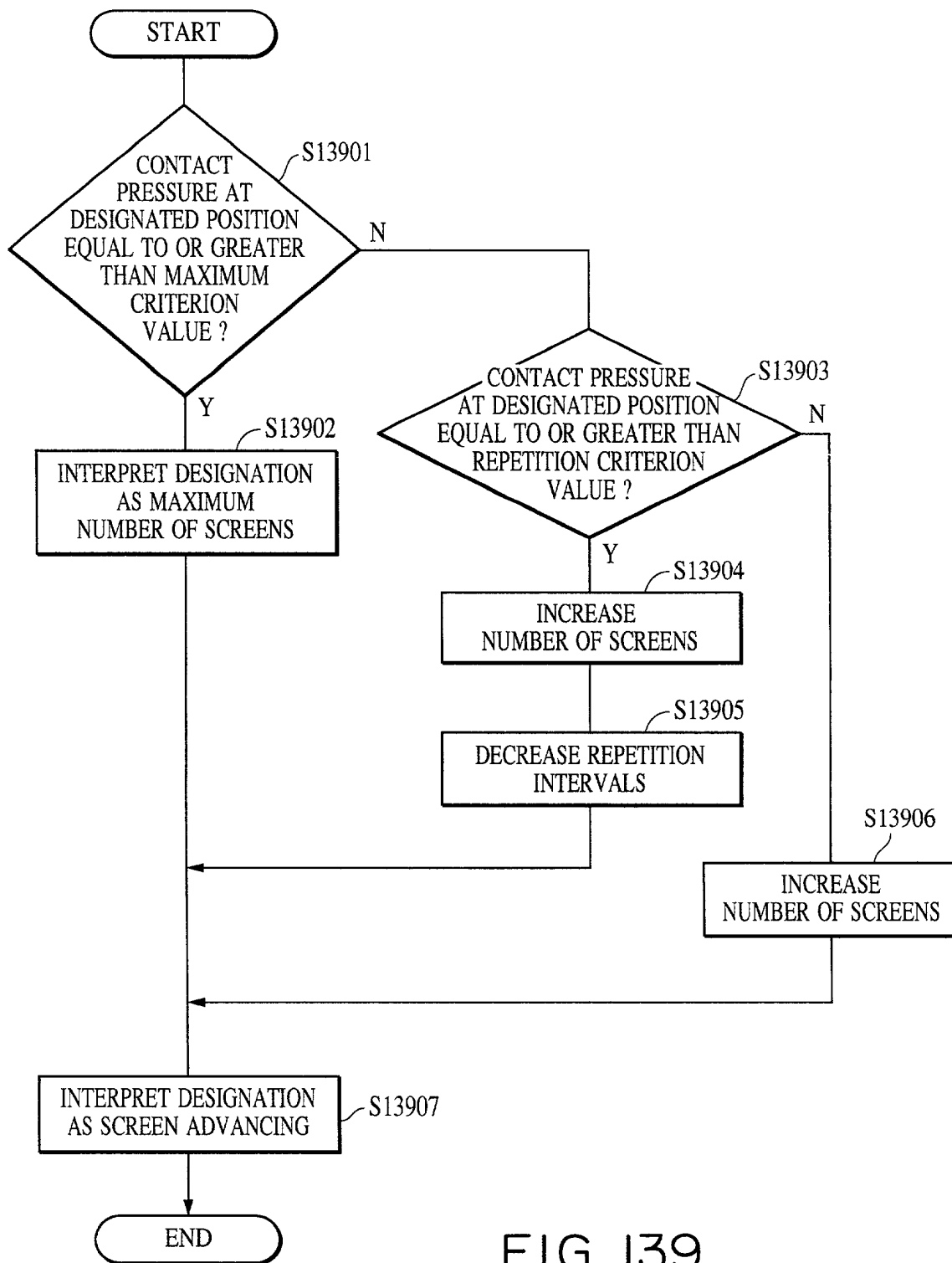


FIG. 139

# SCREEN SHIFTING

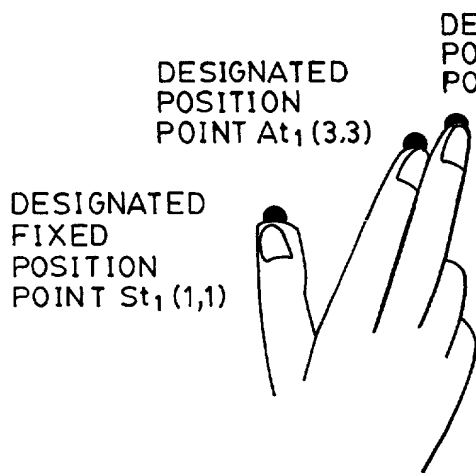


FIG. 140A

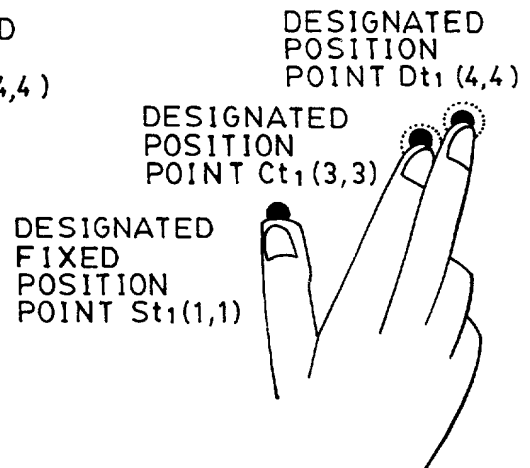


FIG. 140C

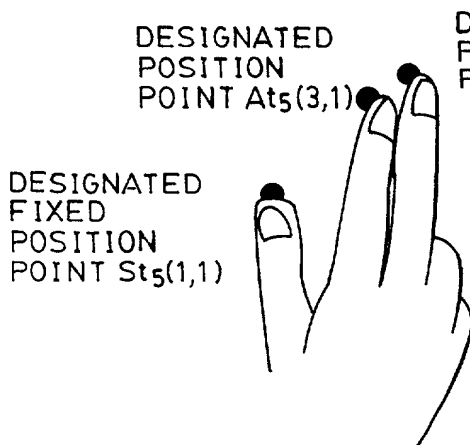


FIG. 140B

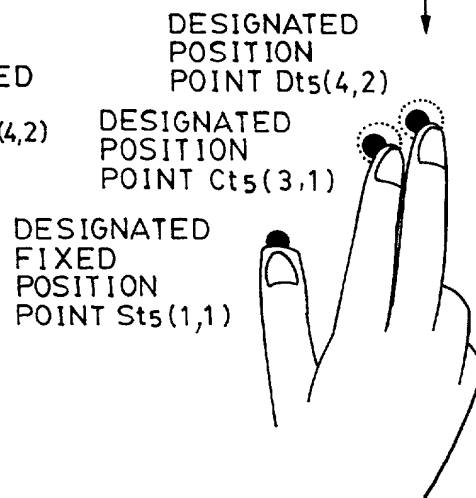


FIG. 140D



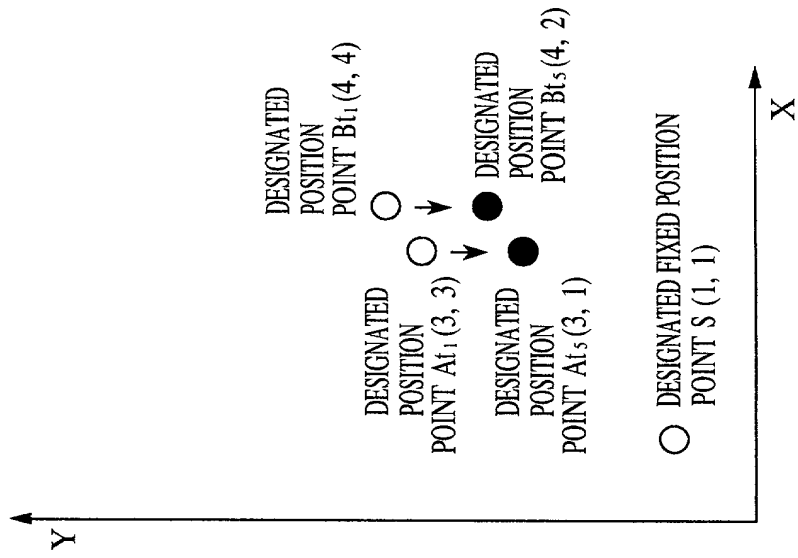


FIG. 14A

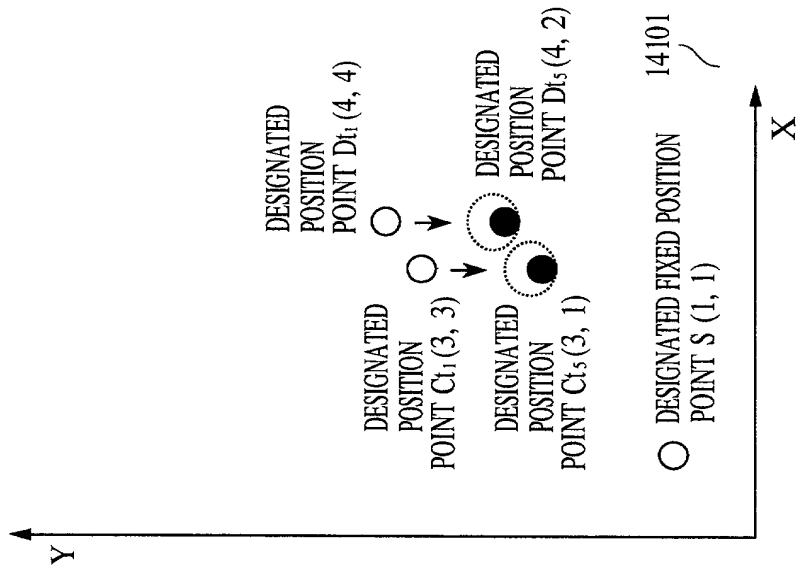


FIG. 14B

DESIGNATED  
FIXED POSITION  
POSITION DATA  
OF POINT S

	S <sub>x</sub>	S <sub>y</sub>
t <sub>1</sub>	1.0	1.0
t <sub>2</sub>	1.0	1.0
t <sub>3</sub>	1.0	1.0
t <sub>4</sub>	1.0	1.0
t <sub>5</sub>	1.0	1.0

DESIGNATED  
POSITION  
POSITION DATA  
OF POINT A

	A <sub>x</sub>	A <sub>y</sub>
t <sub>1</sub>	3.0	3.0
t <sub>2</sub>	3.0	2.6
t <sub>3</sub>	3.0	2.2
t <sub>4</sub>	3.0	1.8
t <sub>5</sub>	3.0	1.0

DESIGNATED  
POSITION  
POSITION DATA  
OF POINT B

	B <sub>x</sub>	B <sub>y</sub>
t <sub>1</sub>	4.0	4.0
t <sub>2</sub>	4.0	3.6
t <sub>3</sub>	4.0	3.2
t <sub>4</sub>	4.0	2.8
t <sub>5</sub>	4.0	2.0

DESIGNATED  
POSITION  
POSITION DATA  
OF POINT C

	C <sub>x</sub>	C <sub>y</sub>
t <sub>1</sub>	3.0	3.0
t <sub>2</sub>	3.0	2.6
t <sub>3</sub>	3.0	2.2
t <sub>4</sub>	3.0	1.8
t <sub>5</sub>	3.0	1.0

DESIGNATED  
POSITION  
POSITION DATA  
OF POINT D

	D <sub>x</sub>	D <sub>y</sub>
t <sub>1</sub>	4.0	4.0
t <sub>2</sub>	4.0	3.6
t <sub>3</sub>	4.0	3.2
t <sub>4</sub>	4.0	2.8
t <sub>5</sub>	4.0	2.0

14102

FIG. 1410A

FIG. 1410B

	CONTACT PRESSURE AT POINT S	CONTACT PRESSURE AT POINT A	CONTACT PRESSURE AT POINT B	CONTACT PRESSURE AT POINT C	CONTACT PRESSURE AT POINT D
t <sub>1</sub>	100	100	100	100	100
t <sub>2</sub>	105	105	105	140	140
t <sub>3</sub>	110	110	110	160	160
t <sub>4</sub>	105	105	105	190	190
t <sub>5</sub>	100	100	100	210	210

FIG. 1410C

START

S14201  
PROCESS OF ACQUIRING DISTANCE  
OF TRAVEL OF DESIGNATED POSITION

S14202  
PROCESS OF INTERPRETING DESIGNATION  
BASED ON DISTANCE OF TRAVEL OF  
DESIGNATED POSITION

END

FIG. 142

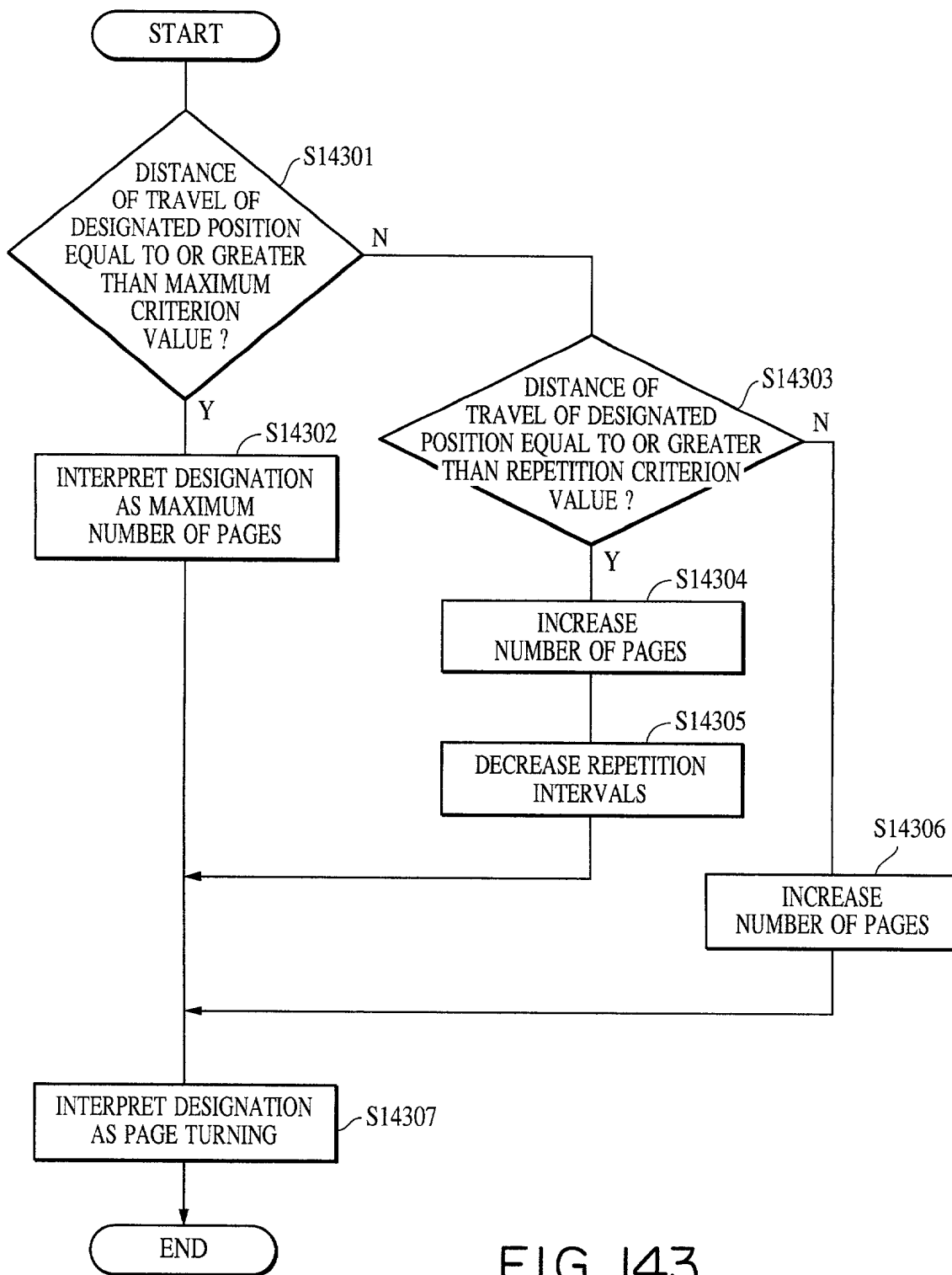
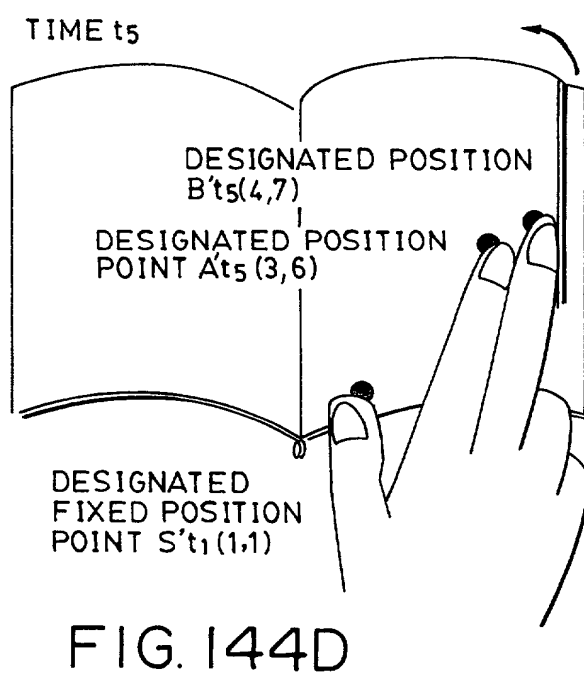
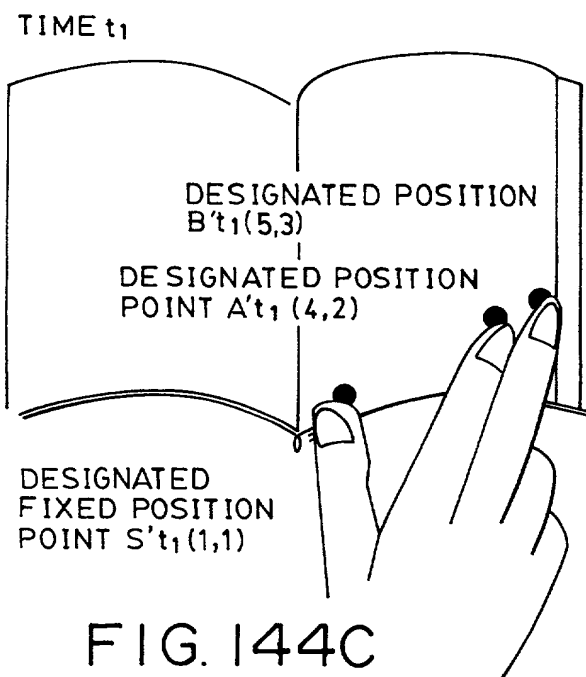
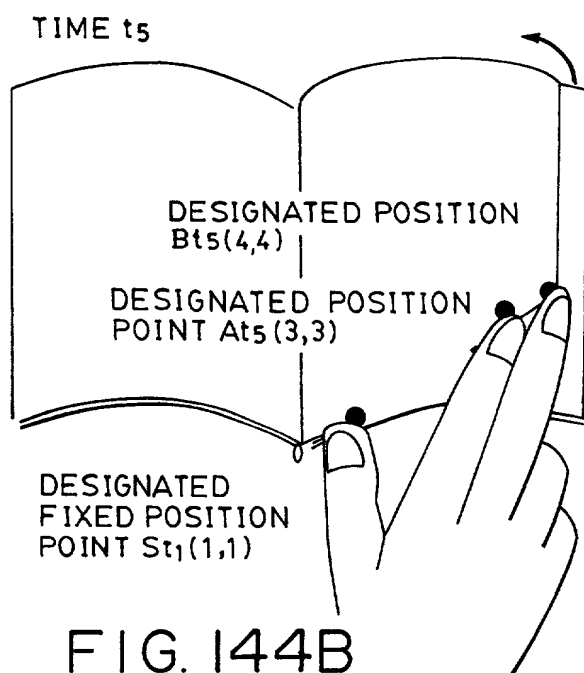
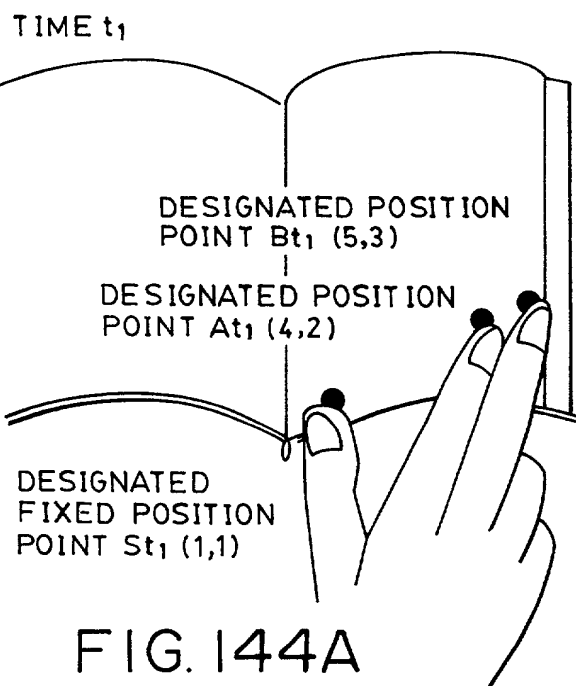


FIG. 143

# PAGE TURNING



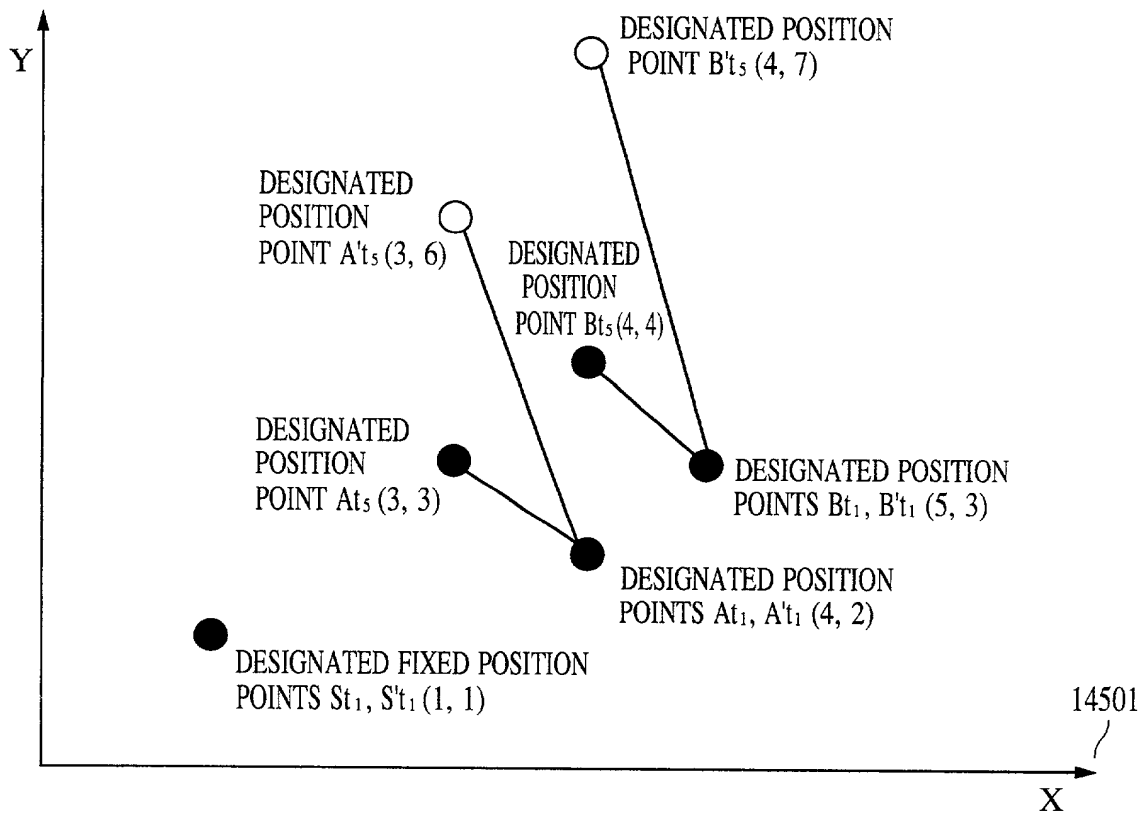


FIG. 145A

DESIGNATED FIXED POSITION POSITION DATA OF POINT S		DESIGNATED POSITION POSITION DATA OF POINT A		DESIGNATED POSITION POSITION DATA OF POINT B		DESIGNATED POSITION POSITION DATA OF POINT A'		DESIGNATED POSITION POSITION DATA OF POINT B'		14502
S <sub>x</sub>	S <sub>y</sub>	A <sub>x</sub>	A <sub>y</sub>	B <sub>x</sub>	B <sub>y</sub>	A' <sub>x</sub>	A' <sub>y</sub>	B' <sub>x</sub>	B' <sub>y</sub>	
t <sub>1</sub>	1.0	1.0	1.0	t <sub>1</sub>	5.0	3.0	t <sub>1</sub>	4.0	2.0	
t <sub>2</sub>	1.0	1.0	1.0	t <sub>2</sub>	4.8	3.2	t <sub>2</sub>	3.8	2.8	
t <sub>3</sub>	1.0	1.0	1.0	t <sub>3</sub>	4.6	3.4	t <sub>3</sub>	3.6	3.6	
t <sub>4</sub>	1.0	1.0	1.0	t <sub>4</sub>	4.4	3.6	t <sub>4</sub>	3.4	4.4	
t <sub>5</sub>	1.0	1.0	1.0	t <sub>5</sub>	4.0	4.0	t <sub>5</sub>	3.0	6.0	

FIG.145B FIG.145C FIG.145D FIG.145E FIG.145F

DATA OF DISTANCE OF TRAVEL OF DESIGNATED POSITION  
14503

	TRAVEL OF POINT S	TRAVEL OF POINT A	TRAVEL OF POINT B	TRAVEL OF POINT A'	TRAVEL OF POINT B'
t <sub>1</sub>	0	0.000	0.000	0.000	0.000
t <sub>2</sub>	0	0.283	0.283	0.825	0.825
t <sub>3</sub>	0	0.566	0.566	1.649	1.649
t <sub>4</sub>	0	0.849	0.849	2.474	2.474
t <sub>5</sub>	0	1.414	1.131	4.123	4.123

FIG.145G

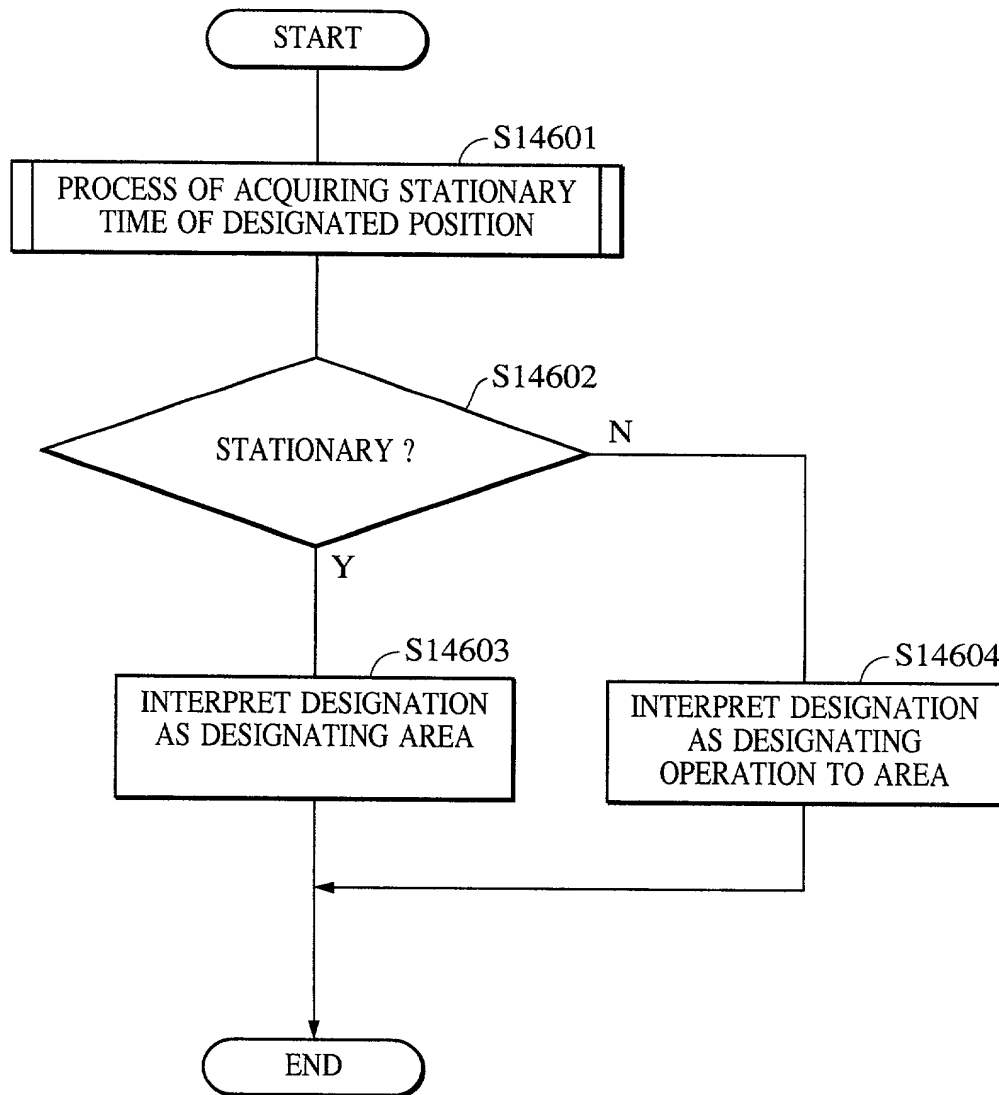


FIG. 146



DESIGNATING  
AREA

DESIGNATED  
POSITION  
POINT  $At_1$

DESIGNATED  
POSITION  
POINT  $Bt_1$

TIME  $t_1$

In a system for preparing a text by using a knowledge base, knowledge relating to input information is first retrieved from the knowledge base. Then, a plurality of kinds of information used as elements of text to be generated is selected from the input information and the retrieved information relating thereto. Subsequently, a describing order, in which the selected elements of the text are described, is determined. Then, the output is generated on the basis of the selected elements of the text and the determined describing order.

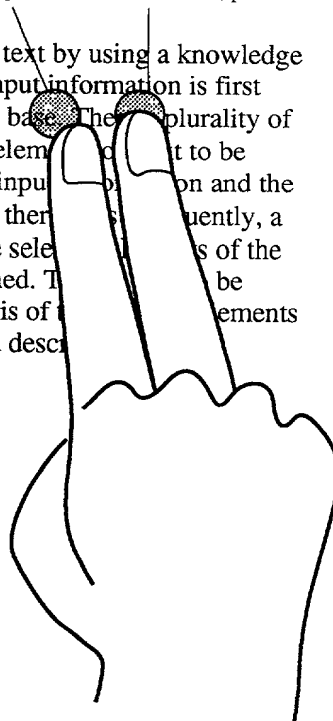


FIG. 147A

DESIGNATED  
POSITION  
POINT  $At_5$

DESIGNATED  
POSITION  
POINT  $Bt_5$

TIME  $t_5$

In a system for preparing a text by using a knowledge base, knowledge relating to input information is first retrieved from the knowledge base. Then, a plurality of kinds of information used as elements of text to be generated is selected from the input information and the retrieved information relating thereto. Subsequently, a describing order, in which the selected elements of the text are described, is determined. Then, the output is generated on the basis of the selected elements of the text and the determined describing order.

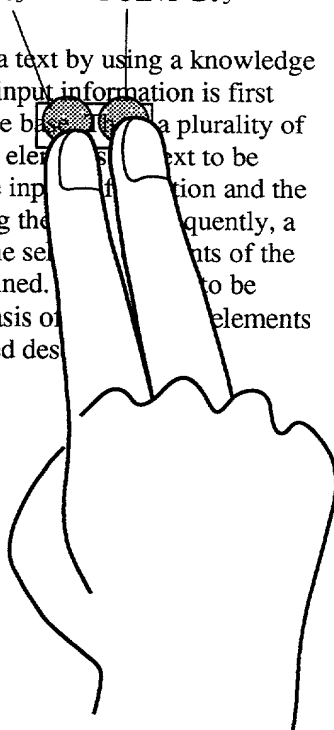


FIG. 147B

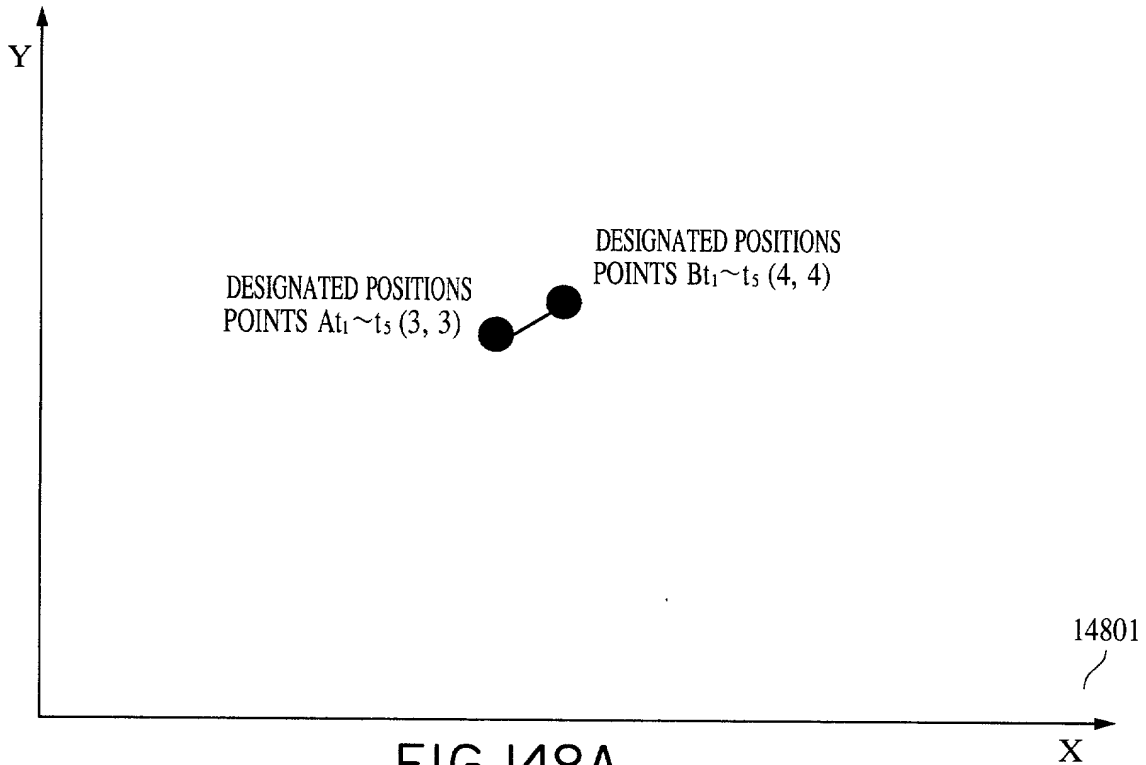


FIG. 148A

DESIGNATED  
FIXED POSITION  
POSITION DATA  
OF POINT A

	$A_x$	$A_y$
$t_1$	3.0	3.0
$t_2$	3.0	3.0
$t_3$	3.0	3.0
$t_4$	3.0	3.0
$t_5$	3.0	3.0

FIG. 148B

DESIGNATED  
FIXED POSITION  
POSITION DATA  
OF POINT B

	$B_x$	$B_y$
$t_1$	4.0	4.0
$t_2$	4.0	4.0
$t_3$	4.0	4.0
$t_4$	4.0	4.0
$t_5$	4.0	4.0

FIG. 148C

14802

DATA OF TRAVEL OF DESIGNATED POSITION

	TRAVEL OF POINT A	TRAVEL OF POINT B
$t_1$	0.000	0.000
$t_2$	0.000	0.000
$t_3$	0.000	0.000
$t_4$	0.000	0.000
$t_5$	0.000	0.000

14803

FIG. 148D

EXPANSION  
OPERATION

DESIGNATED  
POSITION  
POINT  $At_5$

DESIGNATED  
POSITION  
POINT  $Bt_5$

TIME  $t_5$

In a system for preparing a text by using a knowledge base, knowledge relating to input information is first retrieved from the knowledge base. Then, a plurality of kinds of information used as elements of the text to be generated is selected from the input information and the retrieved information relating thereto. Subsequently, a describing order, in which the selected elements of the text are described, is determined. Then, the text is generated on the basis of the selected elements of the text and the determined describing order.

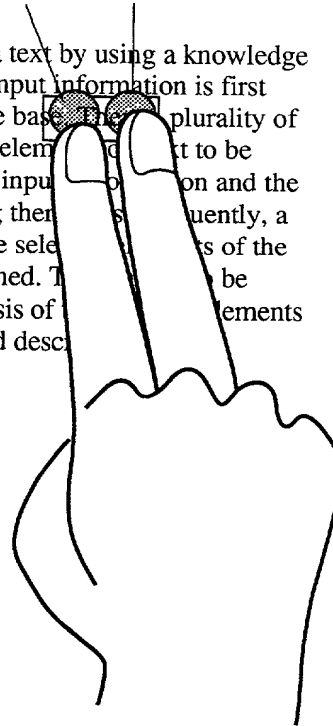


FIG. 149A

14901

DESIGNATED POSITION  
POINT  $At_6$

DESIGNATED POSITION  
POINT  $Bt_6$

TIME  $t_6$

In a system for preparing a text by using a knowledge base, knowledge relating to input information is first

retrieved from the knowledge base. Then, a plurality of kinds of information used as elements of the text to be generated is selected from the input information and the retrieved information relating thereto. Subsequently, a describing order, in which the selected elements of the text are described, is determined. Then, the text is generated on the basis of the selected elements of the text and the determined describing order.

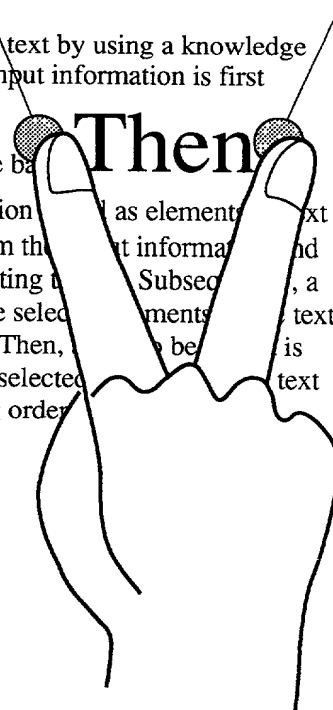


FIG. 149B

14902

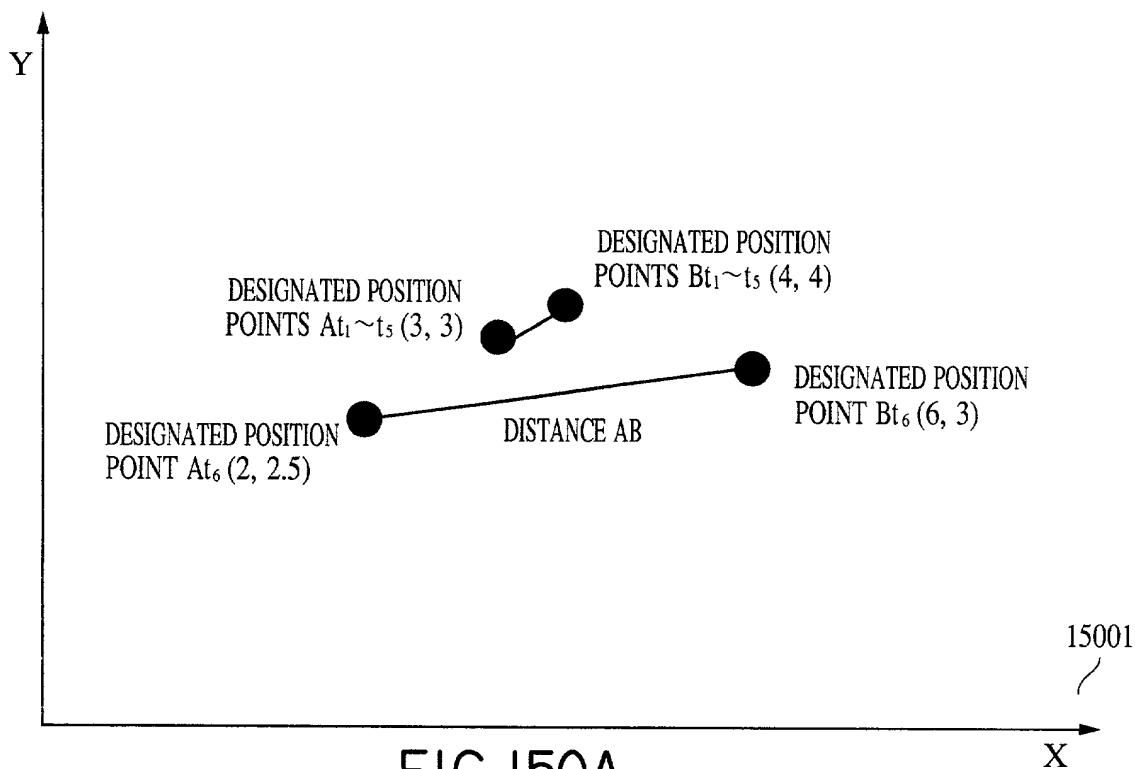


FIG. 150A

DESIGNATED  
MOVING POSITION  
POSITION DATA  
OF POINT A

	$A_x$	$A_y$
$t_1$	3.0	3.0
$t_2$	3.0	3.0
$t_3$	3.0	3.0
$t_4$	3.0	3.0
$t_5$	2.0	2.5

FIG. 150B

DESIGNATED  
POSITION  
POSITION DATA  
OF POINT B

	$B_x$	$B_y$
$t_1$	4.0	4.0
$t_2$	4.0	4.0
$t_3$	4.0	4.0
$t_4$	4.0	4.0
$t_5$	6.0	3.0

FIG. 150C

15002

DATA OF TRAVEL OF DESIGNATED POSITION

	TRAVEL OF POINT A	TRAVEL OF POINT B	DISTANCE AB	DISTANCE CHANGE RATE
$t_1$	0.000	0.000	1.414	100%
$t_2$	0.000	0.000	1.414	100%
$t_3$	0.000	0.000	1.414	100%
$t_4$	0.000	0.000	1.414	100%
$t_5$	1.118	2.236	4.031	285%

15003

FIG. 150D